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Introduction

This is the final progress report for Award W81XWH-05-1-0209. The report provides an overview of the program, followed by a completed report of Statement of Work.

Collaboration around Research and Education (CARE) was a partnership funded by the United States Department of Defense between two academic programs, Duke University School of Nursing (Duke) and Bennett College for Women (Bennett), an historically black college or university (HBCU). We had success across three years in our collaborative relationship. We matched underrepresented minority women students to faculty mentors to facilitate opportunities to study prostate cancer. CARE was marketed by Bennett to freshman and sophomore students who had identified a science major. Applications were accepted from a pool of students who have a 3.0 grade point average and interest in the program. Dr. Sekara R. Basavaraju (*Dr. Rao*) was the initial Bennett faculty mentor until his retirement in the second year of the program. Dr. Michael Cotton was hired by Bennett College for Women, and became the academic adviser and in the program's second year. He, like Dr. Rao, was responsible for the program on the Bennett campus. Following the summer internship on to graduation, students maintained weekly informal contact with the faculty mentor, and more formal monthly advising sessions took place in each semester. Overall GPAs were reported to Dr. Price at Duke for each semester through graduation.

The students engaged in a concentrated mentored 10-week summer experience at Duke University School of Nursing. In addition to the summer concentration in research, we provided continued academic support during the academic year to facilitate student success on to successful graduation with the intent that the students will enroll in graduate, medical, or professional education for a science or health science career. The 10-week summer program included didactic, observational, and experiential training and education. Mentoring for psychosocial support, academic success and career development, and role modeling were included and were strong features of this program.

This program provided students from a minority liberal arts college setting with mentored experiential learning to fulfill the program objectives. Accomplishments are detailed in the body of this report.

Body

Across three program years, 11 students completed the 10-week summer in-residence program. All mentoring faculty were members of the Duke University Medical Center Cancer Prevention and Control Program.

Student - mentor matches were as follows:

Year 1:

Three faculty volunteered as mentors and were matched to students. One of the faculty provided mentorship to two students, and two other faculty mentored one student each.

Three Duke University Medical Center faculty served as mentors:

- Leon Sun, MD, PhD, an associate research professor, Division of Urology, Department of Surgery, One student
- Stephen Freedland, MD
Assistant Professor of Urology and Pathology
Director of Outcomes and Translational Research, Urological Surgery
Two students
- Thomas J. Polascik, M.D, F.A.C.S, Associate Professor, Division of Urology, Dept of Surgery
Two students

Year 2:

Three faculty volunteered as mentors and were matched to students. One of the faculty provided mentorship to two students, and two other faculty mentored one student each.

Three Duke University Medical Center faculty served as mentors:

- Leon Sun, MD, PhD, an associate research professor, Division of Urology, Department of Surgery, One student
- Stephen Freedland, MD
Assistant Professor of Urology and Pathology
Director of Outcomes and Translational Research, Urological Surgery
Two students
- Thomas J. Polascik, M.D, F.A.C.S, Associate Professor, Division of Urology, Dept of Surgery
One student

Year 3:

In our first program year, four students and two alternates were selected for the CARE program from a pool of 8 applicants. Three students were completing their sophomore year, and one student was completing her freshman year. Two alternates were selected.

Scientific faculty mentors with prostate cancer related research were recruited from among Duke University Medical Center's Research 1 environment. Dr. Stephen J. Freedland, Associate Professor, Division of Urologic Surgery, Dept of Surgery, Duke Prostate Center, and member of the Duke University Medical Center Cancer Prevention and Control Program, and faculty/clinician at the Veterans Administration Medical Center, invited the three students to join his research laboratory and work with him and his urology research fellows.

During each of the 10 weeks, the following activities occurred to meet program objectives and complete processes necessary for students to meet University, Medical Center, and Veterans Administration Hospital privacy and laboratory standards:

- Duke University identification badges and parking permits secured; tour of the Duke University campus, medical center, and nursing school.
- Tour of the medical center library.
- Completion of Safety, HIPPA, and Institutional Review Board (IRB) tutorial education modules prior to access to mentors' databases, and the post-test for each. The following modules were required:
 - Protecting Research Subjects
 - What Counts As Research with Human Subjects

In addition, 15 additional human subjects modules and post-tests were completed by each student:

- Basic Institutional Review Board (IRB) Regulations and Review Process
- Belmont Report and CITI Course Introduction
- Completing the CITI GCP Course
- Conducting Clinical Trials of Medical Devices
- Conducting Investigator-Initiated Studies According to FDA Regulations and Good Clinical Practices
- Detection and Evaluation of Adverse Events
- FDA-Regulated Research
- History and Ethical Principles
- Informed Consent
- Investigator Obligations in FDA-Regulated Clinical Research
- Managing Investigational Agents According to GCP Requirements
- Overview of New Drug Development
- Reporting Serious Adverse Events
- Research with Protected Populations - Vulnerable Subjects: An Overview

Program objectives:

Objective 1: Understand prostate cancer disease.

In weekly seminars, students read and discussed research literature from various scientific journals related to prostate cancer research across a number of disciplines, but also research related to development of their project which was based on their mentor's

research. The students prepared abstracts, PowerPoint presentations, and posters for campus exhibits and for state and national conferences.

Students from each summer were required to attend the one-day University of North Carolina Minority Health Conference during the month of February. Oral presentations by professionals highlight the health of minorities. In addition to the scientific presentations at this conference, students networked with graduate faculty and graduate students from various graduate and professional programs from the eastern United States. In addition, two students submitted competitive abstracts and they were selected to display posters at the annual Minority Health Conference.

Objective 2: Develop a beginning level of competence in technological resources for information gathering and data management in prostate cancer research, and writing about and presenting their research.

Students were tutored by a medical center librarian to learn computer-based literature searches which were necessary for their prostate cancer summer project development.

- Students were tutored by a medical center librarian to learn how to conduct computer-based literature searches in scientific medical journals. Students learned to conduct searches based on the work of their mentors.
- Weekly two hour seminars for instruction on writing a research abstract in preparatory for writing an abstract for their own work. The seminar sessions also were used for trouble shooting professionalism issues such as student-mentor communication.
- Students were taught by the program epidemiologist/consultant on the use of data management software, such as Excel, and SPSS for organizing and analyzing their research statistics.
- Presentation of each student's project was done orally using PowerPoint slides, and with poster presentations:

Urology Grand Rounds: Across the three summers students attend the Wednesday morning 7:30- 8:30 a.m. urology division grand rounds. In the final summer (2009) students were invited by the urology division chief to be the featured Urology Grand Rounds presenters to the entire Duke Urology division of attendings, fellows, residents, and the physician assistant. The students wrote abstracts and gave oral PowerPoint presentations on their research projects (these are listed as abstracts). **This is very significant in that this is the first time an invitation has been extended to undergraduate students to conduct a full grand rounds seminar at Duke University Medical Center.** The grand rounds had approximately 40 physicians in attendance, and approximately 10 additional urology personnel, along with the program PI, Dr. Price.

On the final program day students presented their work in the school of nursing to an assembly of mentors, host and home faculty, family members, and friends, followed by a reception in celebration of the students' program achievements. Certificates of participation were presented to each of the students.

Objective 3: Acquire an introduction to the research process through a mentored independent research project addressing an aspect of prostate cancer control, work with the mentors prostate cancer programs of research, and observations and interactions with other research faculty in the research institution.

- Students attended one Duke University Medical Center Institutional Review Board (IRB) meeting to observe a team of medical center IRB members present and evaluate new and renewal study proposals for research integrity and protection of patient's rights during clinical trials in cancer treatment. .
- On-site interaction with research faculty and consultant mentors in the host institution. Interaction and networking with peer scholars and faculty at interdepartmental and laboratory meetings, and full day clinic and inpatient shadowing, and attendance at weekly urology Grand Rounds.
- Direct mentorship by the faculty mentor over the 10 weeks. This included basic science laboratory procedures and experiments, data entry, and literature searches. The students shadowed for select sessions each week in the urology clinic; multidisciplinary prostate clinic where surgeons, radiologists, medical oncologists, and other cancer specialist meet together with the patient to discuss the next steps in treatment; observation in a urology clinic observing work ups and treatment with patients during and after diagnosis for prostate cancer and other urologic disorders; shadowing of nurses in the chemotherapy treatment room, and several theater observations of actual surgeries partnered with a urology fellow to interpret the surgical processes
- Observations on inpatient surgical oncology hospital units where the students shadowed a nurse for one day.

Objective 4: Gained hands-on experience in community-based prostate cancer screening and detection activities.

Students worked in roles to help facilitate the clinic processes along with faculty with the Duke University Medical Center's Division of Urology, to conduct the annual free prostate cancer screening clinics during September 2007, 2008, and 2009. The students assisted with the registration, clinic flow, and consenting process in two day-long prostate cancer screening clinics.

Objective 5: Experience role model development for research and healthcare practice careers, and begin to build networks with researchers and health professionals in a Research I environment.

During each summer, students attended weekly specialty clinics and sat at the table with the attending specialty physicians during patient post evaluation conferences.

Each student spent 1-2 days shadowing a registered nurse on an inpatient unit where patients were treated for prostate and other cancers.

Students attended cultural programs during the 10 weeks at Duke University and in the city of Durham. During their weekend leisure, they interacted with undergraduate students from other university and school of nursing summer institutes.

The students wrote online journals twice a week using the electronic Blackboard site in the school of nursing.

At the end of each program, a paper-pencil evaluation was completed by each student; a face-to-face interview was conducted with each mentor.

Statement of Work followed and completed during each 10-week summer session:

Years 1-3

Task 1: Bennett College: Plan for marketing CARE program to Bennett Biology majors and students with sufficient science courses needed to participate in the program

Months 1-3 (*January, February, March*)

- a. Developed recruitment, application, and interview process.
- b. Minimal qualifications: minority student, student availability for summer program, quality of the program interest essay, and 3.0 minimal Grade Point Average (GPA). From the applicant pool, eight students were selected. The final selection included the four top applicants with four remaining as alternates.
- c. Interviews conducted by the Duke Program Director and Bennett Faculty Adviser.
- d. A reception for selected students was held at Bennett; reception was attended by the students, friends, faculty and administrators, along with Dr. Price and the summer program research assistant.
- e. Payroll process initiated with Bennett for summer stipends to be direct deposited in the students' personal checking accounts on a biweekly basis.
- f. Planned monthly mentoring contact schedule with the Bennett College faculty adviser for fall and spring semesters; they maintained mentoring session with students at least once each month during each semester.

Task 2: Months 4-5 (April, May)

- a. Bennett: Planned ongoing Bennett mentoring schedule.
- b. Bennett: Checked end of year GPAs for applicants.
- c. DUKE: Met with mentors to refine schedule for 10-week summer program

Task 3: DUKE: Months 6-9 (June, July, August, September)

- a. Conducted 10-week summer program. *In summer three one student left the program for medical reasons. None of the four students who had been selected as alternates was available to fill in as they had taken other competitive summer opportunities.*
- b. Abstract and PowerPoint preparations ongoing through the 10 weeks.
- c. Sought opportunities for ongoing grand rounds, medical center and nursing special seminars and presentations, workshop, and seminar opportunities for student attendance
- d. Ongoing meetings held with grant staff (research assistant and PhD epidemiology consultant)

- e. Conducted Mentor and student evaluations and wrap-up
- f. Program administration tasks
- g. Sought presentation and paper opportunities for students during the 2009-2010 academic year

Task 4: Bennett: (September) Coordinate student volunteer activity for September prostate cancer education month. Students assisted with the facilitation of the two day prostate screening at Duke and at a local inner city health center

Task 5: Months 10-12 (October, November, December)

- a. Bennett: Check GPA at the end of fall semester-need to maintain 3.0 overall GPA throughout project. Students maintained their GPAs successfully.
- b. Bennett: Year 3 - Facilitate registration for the University of North Carolina Minority Health Conference for February in each of the three years
- c. Bennett: Facilitate continued weekly/monthly mentorship

Task 6: DUKE/Bennett: Preparation for poster presentations at Minority Health Conference, University of North Carolina, Chapel Hill

Task 7: DUKE: Years 1 & 2, interim program evaluation followed during year 3, and submission to DoD
Month 12

Key Research Accomplishments:

The students developed abstracts (see appendices for full abstracts) based on their summer research and discussed their presentations at the Duke University Medical Center Division of Urology Grand Rounds and at the School of Nursing for the final day of the summer program:

Year 1:

- Nitrecus Simmons, rising junior, under the mentorship of of Stephen Freedland, MD, Associate Professor of Urology and Pathology, and Director of Outcomes and Translational Research, Urological Surgery, Division of Urologic Surgery, Dept of Surgery, Duke Prostate Center “A Comparative Study of Genetic Susceptibility and Risk Factors for Men with and without Prostate Cancer”
- Cymara Tolbert-Warren, Bennett College for Women, junior, under the mentorship of of Stephen Freedland, MD, Associate Professor of Urology and Pathology, and Director of Outcomes and Translational Research, Urological Surgery, Division of Urologic Surgery, Dept of Surgery, Duke Prostate Center “Prostate Cancer: How Diet Effects Tumor Growth”

Rachael Williams, rising senior, under the mentorship of clinical science research mentor Leon Sun, MD, PhD, Division of Urologic Surgery, Dept of Surgery, Duke Prostate Center “Clinical and Pathological Variables: Predictors of PSA Recurrence after Radical Prostatectomy”

- Tiera Wright, rising sophomore, under the mentorship of clinical and basic science research mentors Thomas J. Polascik, MD, FACS and Vladimir Mouraviev, MD, PhD, Division of Urologic Surgery, Dept of Surgery, Duke Prostate Center “Targeting the Source: The Effectiveness of ProstaScint”

Year 2:

- Tiffany Johnson, rising junior, under the mentorship of Stephen Freedland, MD, Associate Professor of Urology and Pathology, and Director of Outcomes and Translational Research, Urological Surgery, Division of Urologic Surgery, Dept of Surgery, Duke Prostate Center “The Effects of Resveratrol on Prostate Cancer Growth”
- Prestina Smith, rising junior, under the mentorship of Stephen Freedland, MD, Associate Professor of Urology and Pathology, and Director of Outcomes and Translational Research, Urological Surgery, Division of Urologic Surgery, Dept of Surgery, Duke Prostate Center “Sun Exposure and Prostate Cancer: An Investigation”
- Desann Maul, rising junior, rising junior, under the mentorship of Stephen Freedland, MD, Associate Professor of Urology and Pathology, and Director of Outcomes and

Translational Research, Urological Surgery, Division of Urologic Surgery, Dept of Surgery, Duke Prostate Center “Urinary Function: A comparative analysis of urinary symptom severity in patients with and without prostate cancer”

- Jessica Terry, rising junior, under the mentorship of Thomas Polascik, MD, PhD, Associate Professor, Division of Urologic Surgery, Dept of Surgery, Duke Prostate Center and Vladimir Mouraviev, MD, PhD, Division of Urologic Surgery, Dept of Surgery, Duke Prostate Center “The Complication Rate of 3rd Generation Cryosurgical Ablation of the Prostate”

Year 3:

- Shoteria M. Pearson, rising junior “Does Alcohol Consumption Increase the Risk for Being Diagnosed with Prostate Cancer?”
- Taliah F. Glenn, rising junior “The Effect of Smoking History on Time from Surgery to Biochemical Recurrence in Patients with Prostate Cancer treated with Radical Prostatectomy”
- Tonisha Coburn, rising junior “The Differential Effects of Carbohydrates. Calories upon Prostate Cancer Tumor Growth in a Xenograft Murine Model”

All three students were under the mentorship of Stephen Freedland, MD, Associate Professor of Urology and Pathology, and Director of Outcomes and Translational Research, Urological Surgery, Division of Urologic Surgery, Dept of Surgery, Duke Prostate Center

Reportable Outcomes:

Successful completion of the summer program for eleven students; students prepared abstracts based on their summer laboratory experiences and presented orally and conducted poster discussions over the course of the summer and academic year. Students maintained a minimum of a 3.0 GPA and are continuing in their respective pre-med majors with high interest in medical school or other graduate and professional science and research programs.

1. **Nitrecus Simmons**, Stephen Freedland, “A Comparative Study of Genetic Susceptibility and Risk Factors for Men with and without Prostate Cancer”, U.S. Department of Defense, IMPaCT Conference, Atlanta, Ga, September 2007.
2. **Cymara Tolbert-Warren**, Cooper Buschemeyer, Joseph Klink, John Mavropoulos, Lionel Banez, Jay Jaychadran, Tracy Johnson, Susan Poulton, Stephen Hursting, Marva Price, and Stephen Freedland. “Effect of Intermittent Caloric Restriction on Prostate Cancer Growth and Survival in Mice”, Podium presentation, U.S. Department of Defense, IMPaCT Conference, Atlanta, Ga, September 2007.
3. **Rachael Williams**, Florian R. Schroeck, Kadi-Ann N. Bryan, Marva Price, Leon Sun, and Judd W. Moul. “Clinical and Pathological Variables: Predictors of PSA Recurrence after Radical Prostatectomy”, Podium presentation, U.S. Department of Defense, IMPaCT Conference, Atlanta, Ga, September 2007.
4. **Cymara Tolbert-Warren**, Cooper Buschemeyer, Joseph Klink, John Mavropoulos, Lionel Banez, Jay Jaychadran, Tracy Johnson, Susan Poulton, Stephen Hursting, Marva Price, and Stephen Freedland. “Effect of Intermittent Caloric Restriction on Prostate Cancer Growth and Survival in Mice”, Duke University Medical Center Annual Cancer Symposium, Durham, March 12, 2008.
5. Bryan, K.A.N., Florian, S.R., **Williams, R.**, Price, M., Sun, L., and Moul, J.W. “Independent predictors for PSA recurrence after radical prostatectomy: Gleason score 3+4 versus 4+3 and percent tumor involvement”. Podium presentation, Southeastern Section American Urological Association 72nd Annual Meeting, San Diego, March 2008.
6. **Williams, R.**, Schroeck, F.R., Bryan, K.A. N., Price, M., Sun, L., and Moul, J.W. “Clinical and Pathological Variables: Predictors of PSA Recurrence after Radical Prostatectomy”, Podium presentation, Intercultural Cancer Conference, Baylor University, held in Washington, DC, April 2008.
7. Koontz, B. F., **Wright, T.**, Price, M., Polascik, T. J., Mayes, J. M., Wong, T. Z., Madden, J., & Mouraviev, V. (2008, May). “Indium Capromab Pendetide Scintigraphic Imaging prior to Surgical Management of Prostate Cancer”. Poster presentation, American Urological Association Annual Meeting, Orlando, FL Tracking Number: 08-AB-95342-AUA. May 17-22, 2008.

8. **Terry, J.**, Polascik, T., Mouraviev, V., & Price, M. The complication Rate of Third Generation Cryosurgical Ablation of the Prostate. Paper presented at the Joint Meeting of the 19th Annual Argonne Symposium for Undergraduates in Science, Engineering, and Mathematics. Computer Information Science and Engineering (CISE) Education, Stakeholder's Summit and the Central States Universities Incorporated (SCUI). Argonne National Laboratory Aps Conference Center, Argonne, IL. Oral Abstract # 124. November 2008.
9. **Rachael Williams**, Florian R. Schroeck, Kadi-Ann N. Bryan , Marva Price, Leon Sun, and Judd W. Moul. "Clinical and Pathological Variables: Predictors of PSA Recurrence after Radical Prostatectomy", Podium presentation, 9th Annual Surgical Urologic Oncology Meeting, Natcher Conference Center, National Institutes of Health, Bethesda, December 4-5, 2008.
10. Tsivian, M., **Wright, T.**, Price, M., Mouraviev, V., Madden, J.F., Kimura, M., Wong, T., & Polascki, T.J. "111-In-Capromab Pendetide Imaging Using Hybrid Gamma Camera-Computer Tomography Technology Is Not Reliable In Detecting Seminal Vesicle Invasion In Patients With Prostate Cancer". Urologic Oncology. 2010 Feb. 27. [Epub ahead of print]. PMID: 20189846.
11. **Nitrecus Simmons** was selected for the summer 2009 University of North Carolina, Chapel Hill, The Medical Education Development (MED) Program. She completed four courses.
12. MED is an intensive educational experience and challenging opportunity to gain insight into the realities of attending medical. The program offers a structured summer curriculum at the level of professional education to increase the ability of advanced pre-professional candidates, especially those who are disadvantaged, to compete successfully for admission to health professional schools.
13. **Nitrecus Simmons**: The Henry J. Kaiser Family Foundation selected 12 individuals out of 250 applicants for the 2010 Barbara Jordan Health Policy Scholars. The Scholars had an opportunity to learn first-hand about health policy and the policymaking process during a nine-week position as staff to a congressional office. The Foundation established the Barbara Jordan Scholars Program in memory of former U.S. Congresswoman Barbara Jordan -- the first African American woman elected to Congress from Texas and a deeply respected member of the Foundation's board of trustees. The program is designed to introduce recent college graduates with an interest in issues affecting racial and ethnic minority and underserved communities to the federal legislative process and current issues in health policy. In addition to working on Capitol Hill, Scholars participated in seminars and site visits organized by the Foundation to broaden their knowledge of health policy issues. Under the guidance of the Foundation's staff, the Scholars also complete an in-depth analysis of a health policy issue and produce a policy memo. Simmons worked in the office of Rep. Jesse Jackson, Jr, Dem, IL.

14. **Nitrecus Simmons** currently is a fellow in the Integrated Technology Transfer Network (ITTN) Program at California State University. She has been afforded the opportunity to work on existing technology transfer and commercialization projects, interact with entrepreneurs and research mentors, and participate in challenging seminar coursework on technology entrepreneurship. The goal of the program is to develop entrepreneurial scientists who create successful businesses through the emergence of science expertise and innovative entrepreneurial approaches, 2010-2011.
15. **Shoteria M. Pearson** & Stephen Freedland “Does Alcohol Consumption Increase the Risk for Being Diagnosed with Prostate Cancer?” Poster presentation, U.S. Department of Defense, IMPaCT Conference, Atlanta, Ga, March 2011.
16. **Cymara Tolbert-Warren** is studying for the Master of Public Health degree at Drexel University.

Conclusions

Program Evaluation:

This program was highly successful. Eleven African-American women students from a small private HBCU, with a student population less than 300 students, had an advanced beginning level of learning experience in basic and clinical prostate cancer research. Students' evaluation feedback indicated that they had been well-exposed to laboratory and clinical research, an area they had not been involved in before. They felt that they found a whole new body of knowledge applicable in improving their understanding of research in their academic programs and future scientific careers.

These students were engaged in a concentrated 10-week mentored summer research program. All of the students were at similar levels of unexposure to cancer research and all had the potential and the opportunity to gain a great deal from the internship. All of the experiences and activities were completely new for the participants. They had no research training; nor had they been exposed to understanding the prostate function or disease state. Thus, this program was able to provide a learning experience and address student needs that may not be addressed elsewhere or at any other time in their academic career. Furthermore, we were very successful in meeting the proposed goals of the program and in some areas even reaching beyond our predetermined expectations, particularly with the amount of materials on the prostate and research that the students were able to learn and understand, along with their individual project development which resulted in abstract submissions for conferences. During their final presentations students addressed approximately 50 in attendance at the Urology Grand Rounds, and on the following day presented to an audience of approximately 40 Duke faculty and staff, community members and family, engaging in a discussion of the complex physiology, basic science, clinical applications, research methodology, and prostate cancer prevention and control. Several of the program participants contributed to national presentations and several were published in refereed scientific journals on aspects of prostate cancer.

Unexpected Difficulties Encountered:

One student left the program in the second week due to health problems.

So What

We believe that we delivered an excellent undergraduate research training model for collaboration between small private liberal arts HBCU with a very strong science curriculum. We engaged in a program that has proven to be exemplary. The PI mentored these students through their college graduation (one remains to graduate in May 2011) and the PI will serve as a resource as they seek graduate and professional school admission for careers in science, healthcare, or research with a commitment to cancer research.

References

- AHRQ (2002). Task force finds evidence lacking on whether routine screening for prostate cancer improves health outcomes. Retrieved February 20, 2006, from <http://www.ahrq.gov>
- American Cancer Society. (2007). Cancer facts and figure – 2007. Atlanta: American Cancer Society, Inc.
- American Cancer Society (2007). Cancer facts & figures for African Americans. Atlanta: American Cancer Society, Inc.
- American Cancer Society (2007). Cancer Prevention & early detection facts & figures. Atlanta: American Cancer Society, Inc.
- Bent S, Kane, C, Shinohara, K., Neuhaus, J., Hudes, E.S., Goldberg H., Avins, A.L.N. (2006). Saw palmetto for benign prostatic hyperplasia. New England Journal of Medicine, 354 (6), 557-66.
- Bowen, P., Chen, L., Stacewicz-Sapuntzakis, M., Duncan, C., Sharifi, ., Gh., Kim, H.S., Christov-Tzelkov, K., van Breemen, R. (2002). Tomato sauce supplementation and prostate cancer: lycopene accumulation and modulation of biomarkers of carcinogenesis. Exp Biol Med (Maywood), 227(10), 886-93.
- Briss, P., Rimer, B., Reilley, B., Coates, R., Lee, N.C., Mullen, .P, Corso, P., Hutchinson, A.B., Hiatt, R., Kerner, J., George, P., White, C., Gandhi, N., Saraiya, M., Breslow, R., Isham, G., Teutsch, S.M., Hinman, A.R., Lawrence, R. Task Force on Community Preventive Services. (2004). Promoting informed decisions about cancer screening in communities and healthcare systems. American Journal of Preventive Medicine. Atlanta: Centers for Disease Control and Prevention, Epidemiology Program Office, 26 (1), 81-3.
- Carter, H.B. (2006). Assessing risk: does this patient have prostate cancer? Journal of National Cancer Institute, 98 (8), 506-507.
- Catalona, W. J., (2006). Understanding the facts about PSA testing. The Clinical Advisor, 37-38, 40.
- Combs, G.F. (2004). Status of selenium in prostate cancer prevention. Review. British Journal of Cancer, 91(2), 195-9.
- Dagnelie, P.C., Schuurman, A.G., Goldbohm, R.A., and Van Den Brandt, P.A. (2004). Diet, anthropometric measures and prostate cancer risk: a review of prospective cohort and intervention studies. BJU Int. 93: 1139-1150.

- DiPaola, R.S., and Morton, R.A. (2006). Proven and Unproven Therapy for Benign Prostatic Hyperplasia. New England Journal of Medicine, 354, 632-634.
- Elhilali, M.M. (2000). PSA screening: the bottom line. Canadian Medical Association, 162 (6), 791-92.
- Fouad, M.N., Mayo, C.P., Funkhouser, E.M., Irene Hall, H., Urban, D.A., Kiefe, C.I. (2004). Comorbidity independently predicted death in older prostate cancer patients, more of whom died with than from their disease. Clinical Epidemiology, 57(7), 721-9.
- Frederick, L. (2006). Who gets PSA testing, when? The Clinical Advisor, 1.
- Gerard, M.J. and Frank-Stromborg, M. ((1998). Screening for prostate cancer in asymptomatic men: clinical, legal, and ethical implications. Oncology Nursing Forum, 25 (9), 1561-1569.
- Giovannucci, E.A. (2002). Prospective Study of Tomato Products, Lycopene, and Prostate Cancer Risk, Journal National Cancer Institute, 94, 391-398.
- Giovannucci, E., Rimm, E.B., Liu Y., Leitzmann, M., Wu, K, Stampfer, M.J. and Willett, W.C. (2003). Body mass index and risk of prostate cancer in U.S. health professionals. J Natl Cancer Inst. 95: 1240-1244.
- Godley, P. (1999). Prostate cancer screening: promise and peril – a review. Cancer Detect Prevention, 23(4), 316-24.
- Gronberg, H., Wiklund F., Damber, J.E. (1999). Age specific risks of familial prostate carcinoma: a basis for screening recommendations in high risk populations. Cancer, 86 (3), 477-83.
- Holden, J. and Emery, C.B. (2004). Prostate cancer – primary care providers play critical role. Advance, 28-36.
- Labrie, F. (2000). Screening and hormonal therapy of localized prostate cancer shows major benefits on survival. Review. Cancer Journal, 6, Suppl 2, S182-7.
- Lu-Yao, G., Stukel, T.A., Yao, S-L. (2003). Prostate-specific antigen screening in elderly men. Journal of the National Cancer Institute, 95, 1792-1797.
- Malafa, M.P., Fokum, F.D., Andoh, J., , L.T., Bandyopadhyay, S., Zhan, R., Iizumi, M., Furuta, E., Hor, E., Watabe, K. (2006). Vitamin E succinate suppresses prostate tumor growth by inducing apoptosis. International Journal of Cancer, 118 (10), 2441-7.

- Malik, A., Afaq, F., Sarfaraz, S., Adhami, V.M., Syed, D.N., Mukhtar, H. (2006).
Pomegranate Juice Inhibits Prostate Cancer. Proceedings of the National Academy of Sciences, 102 (41), 14813-14818.
- Murthy, G.D. Byron, D.P., Pasquale, D. (2004). Underutilization of digital rectal examination when screening for prostate cancer. *Arch. Internal Medicine*, 164, 313-316.
- Myers, R.E. (1999). African American men, prostate cancer early detection examination use, and informed decision-making. *Seminars in Oncology*, 26 (4), 375-381.
- National Cancer Institute, SEER (Surveillance, Epidemiology, and End Results) 1999-2004, SEER Cancer Statistics Review, 1975-2004, Bethesda, MD: National Institutes of Health, Retrieved April 27, 2007, from http://seer.cancer.gov/csr/1975_2004/
- News. (2005). Soy and cancer: seeds of answers, but no fruit. *Journal of the National Cancer Institute*, 97 (20), 1494.
- Newsline (2006). Lab research links prostate cancer to a virus. *The Clinical Advisor*, 12.
- O'Dell, K.J., Volk, R.J., Cass, A.R., Spann, S.J. (1999). Screening for prostate cancer with the prostate-specific antigen test: are patients making informed decisions? *Journal of Family Practice*, 48(9), 682-8.
- Patel, M.I., DeConcini, D.T., Lopez-Corona, E., Otori, M., Wheeler, T., Scardino, P.T. (2004). An analysis of men with clinically localized prostate cancer who deferred definitive therapy. *Journal of Urology*, 171(4), 1520-4.
- Ransohoff, D.F., McNaughton Collins, M., Fowler, F.J. (2002). Why is prostate cancer screening so common when the evidence is so uncertain? A system without negative feedback. *American Journal of Medicine*, 1;113 (8), 691-3.
- Ransohoff, D.F., McNaughton Collins, M., Fowler, F.J. author reply. (2003). Why is prostate cancer screening so common when the evidence is so uncertain? A system without negative feedback. *American Journal of Medicine*, 1;114 (8), 706.
- Sawaya, M. (2004). Comparison of Dutasteride (Avodart) With Finasteride (Proscar). Retrieved February 28, 2007, from <http://www.anagen.net/truthduta.htm>
- Sheldon, H.F. and Marks, M.D. (2001). Prostate-specific antigen testing – an essential guide to its use and meaning. *Advance for Nurse Practitioners*, 39, 43-44.

- Sheridan, S.L., Harris, R.P., Woolf, S.H. (2004). Shared decision making about screening and chemoprevention. a suggested approach from the U.S. Preventive Services Task Force. *American Journal of Preventive Medicine*. 26 (1), 56-66.
- Smith, D.S., Bullock, A.D., and Catalona, W.J. (1997). Racial differences in operating characteristics of prostate cancer screening tests. *The Journal of Urology*, 158 (5), 1861-1865.
- Stone, S.N., Hoffman, R.M., Tollestrup, K., Stidley, C.A., Witter, J.L., Gilliland, F.D. (2003). Family history, hispanic ethnicity, and prostate cancer risk. *Ethnicity and Disease*, 13 (2), 233-9.
- Weinrich, S. (2001). The debate about prostate cancer screening: what nurses need to know. *Seminar in Oncology Nursing*, 17 (2), 78-84.
- Whittemore, A.S., Kolonel, L.N., Wu, A.H., John, E.M., Gallagher, R.P., Howe, G.R., Burch, J.D., Hankin, J., Dreon, D.M., West, D.W., et al. (2005). Prostate cancer in relation to diet, physical activity, and body size in blacks, whites, and Asians in the United States and Canada. *J Natl Cancer Inst*. 87: 652-661.

Appendices

- PI Curriculum Vitae
- Meeting Abstracts
- Study Personnel
- PI Contact Information

DUKE UNIVERSITY MEDICAL CENTER
CURRICULUM VITAE

for
Permanent Record
and the
Appointments and Promotions Committee

Date Prepared: December 2010

Name (complete with degrees): Marva L. Mizell Price, DrPH, MPH, FNP, FAANP, FAAN

Primary academic appointment: School of Nursing

Secondary appointment (if any) – N/A

(department):

Full Member, Duke Comprehensive Cancer Prevention, Detection & Control Research Program, appointed 2003 to present, reviewed 2008.

The program is comprised of 41 members with a strong portfolio of basic and clinical research in prevention/early detection, cancer patients and survivors, and in epidemiology and epigenetics.

Present academic rank and title (if any): Associate Professor

Date and rank of first Duke Faculty
appointment:

September 1996, Assistant Clinical Professor
July 1, 2001, Assistant Professor
September 1, 2009, Associate Clinical Professor

Nursing Licensure:

Date of License (Month/Day/Year): # August 1972; renewal – November 25, 2010

Specialty certification(s) and dates (Month/Day/Year):

St. Margaret's Hospital, Boston: Natural Family Planning Instructor 1988

American Nurses Credentialing Center (ANCC): Family Nurse Practitioner Certification #0004299-22 issued 1982; recertified 2007-3/31/2012

North Carolina Board of Nursing: #049064, North Carolina Registered Nurse Renewal 11/25/2010

Family Nurse Practitioner, Initial Approval 11/1974 Reapproval 11/25/2009
Recredentialed by Duke University Medical Center Credentialing Service 2009

Date of birth: 11-25 Place: Columbia, N.C. USA

Citizen of: USA

Visa status (if applicable): N/A

<u>Education</u>	<u>Institution</u>	<u>Date (Year)</u>	<u>Degree</u>
High School	Tyrrell High School Columbia, NC	1968	Diploma
College	School of Nursing North Carolina Agricultural & Technical State University Greensboro, NC	1972	Bachelor of Science in Nursing (B.S.N.)
Graduate or Professional School	School of Public Health, Department of Maternal and Child Health, University of North Carolina, Chapel Hill, NC	1974	Master of Public Health (M.P.H.) in Maternal Child Health
	School of Nursing University of North Carolina, Chapel Hill, NC	1974	Family Nurse Practitioner Certificate
	School of Nursing University of Washington, Seattle, Washington's Center on Human Development and Disability (CHDD), formerly called the Child Development and Mental Retardation Center (CDMRC)	1979	Post-Masters Certificate in Developmental Pediatrics
	School of Nursing Emory University Atlanta, GA Regional Training Center for Family Planning	1983	Contraception for the Family/Adult Nurse Practitioner 80 hour course
	School of Public Health, Department of Maternal and Child Health and Program in Public Health Leadership, University of North Carolina, Chapel Hill, NC	1997	Doctor of Public Health (DrPH) in Maternal and Child Health and Public Health Leadership
		1995-1997	Pre-doctoral Fellow, Cancer Prevention and Detection, University of North Carolina Lineberger Comprehensive Cancer Center, Chapel Hill

Scholarly Societies:

1973	Inducted, Delta Omega Honor Society in Public Health
1974	Inducted, Sigma Theta Tau, Alpha Alpha Chapter, University of North Carolina, International Honor Society in Nursing
1978-1980	Junior and Senior student counselor
1996	Charter Member, Sigma Theta Tau, Mu Tau Chapter, North Carolina Agricultural and Technical University, International Honor Society in Nursing
2002	Inducted, Fellow of the American Academy of Nursing
2007	Inducted, Fellow of the American Academy of Nurse Practitioners

Professional training and academic career:

<u>Institution</u>	<u>Position/Title</u>	<u>Date</u>
Post-Baccalaureate:		
Annie Penn Memorial Hospital Reidsville, NC	Registered Nurse Rotated on all services in a 120 bed community hospital (Medical/surgical, ER, Delivery Room, Pediatrics, Recovery Room)	1972-1974
Post-Master's:		
University of North Carolina, School of Public Health, Department of Public Health Nursing for Orange Chatham Comprehensive Health Services, Chapel Hill, NC	Family Nurse Practitioner	1973-1974
University of North Carolina Employees Health Services, Chapel Hill, NC	Family Nurse Practitioner	1974-1976
University of North Carolina, Chapel Hill, NC Division for Disorders of Development and Learning (currently Center for Development and Learning)	Family Nurse Practitioner	1976-1982
State of North Carolina Department of Health and Human Services, Winston Salem, NC & Raleigh, NC	Family Nurse Practitioner and Nursing Consultant, Family Planning and Women's Health, Division of Maternal Child Health	1982-1991
Duke University Medical Center, Durham, NC Department of Obstetrics and Gynecology, Division of GYN Oncology	Family Nurse Practitioner and Program Coordinator, Women's Cancer Screening Program & Cervical Dysplasia Private Clinic	1991-1994
Chatham County Health Department Pittsboro, NC	Interim Health Director, Chief Executive Officer	1992
Kaiser Permanente Durham-Chapel Hill Office, NC	Family Nurse Practitioner	1994
Randolph County Health Department, Family Planning Clinic, Asheboro, NC	Family Nurse Practitioner	1996
Post-Doctorate:		
Duke University School of Nursing, Durham, NC	Assistant Clinical Professor	1996-2001
Family Nurse Practitioner Program	Assistant Professor	2001-2009
Program/Specialty Director	Associate Clinical Professor	2009-Present May 2002-2007

Publications:

**1. Refereed journals:
Published**

1.	Price, M.M. (1980). Critique of the Milani-Comparetti Motor Development Screening Test. <u>Physical And Occupational Therapy In Pediatrics</u> , 1 (1), 59-68.
2.	Smith, E.M., Phillips, J.M., & Price, M.M. (2001). Screening and early detection among ethnic minority women. <u>Seminars in Oncology Nursing</u> , 17 (3), 159-170.
3.	Van Buren, K.G. & Price, M.M. (2002). Recognizing Obstructive Sleep Apnea in Children. <u>The American Journal for Nurse Practitioners</u> , 6(7), 9-17.
4.	Brown, S.M. & Price, M.M. (2003). Man with swollen lips and tongue. <u>Clinician Reviews</u> , 13 (4): 81-86. (<i>Ace-Inhibitors for Hypertension</i>)
5.	National Organization of Nurse Practitioner Faculties (NONPF) Practice Doctorate Task Force: Marion, L., Viens, D., O'Sullivan, A.L., Crabtree, K., Fontana, S. Price, M. (2003). The Practice Doctorate in Nursing: Future or Fringe? NONPF Practice Doctorate Task Force. <u>Medscape</u> . Topics in Advanced Practice Nursing eJournal 3 (2), 2003. © 2003 Medscape.
6.	Marion, L., O'Sullivan, A.L. Crabtree, M.K., Price, M. Fontana, S. (2005). Curriculum Models For The Practice Doctorates In Nursing. <u>Medscape</u> . Topics in Advanced Practice Nursing eJournal 5 (1), 2005. © 2005 Medscape.
7.	Price, M.M. , Hamilton, R.J., Robertson, C.N., Butts, M.C., Freedland, S.J. (2008). Body Mass Index, Prostate-Specific Antigen, and Digital Rectal Examination Findings Among Participants in a Prostate Cancer Screening Clinic. <u>Urology</u> . 2008 May; 71(5):787-91. Epub 2008 Feb 11. PMID: 18267334.
8.	Schroek, F.R., Krupski, T. L., Sun, L., Albala, D.M., Price, M. M. , Polascik T.J., Robertson, C.N. Robertson, Tewari, A.K, and Moul, J.W. "Satisfaction and Regret after Open Retropubic or Robot-Assisted Laparoscopic Radical Prostatectomy". <u>Urology</u> . 2008 Oct; 54(4):785-93. Epub 2008 Jun 23. PMID: 18585849.
9.	Caire, A.A., Sun, L., Robertson, C.N., Polascik, T.J., Maloney, K.E., George, D.J., Price, M.M. , Stackhouse, D.A., Lack, B.D., Albala, D.M. and Moul, J.W. "Public Survey And Survival Data Do Not Support Recommendations To Discontinue PSA Screening In Men At Age 75". <u>Urology</u> . 2009, Oct 6. [Epub ahead of print]. PMID: 19815259.
10.	Kimura, M., Tsivian, M., Mouraviev, V., Mayes, J., Price, M. , Bannister, M., Madden, J., Wong, T., and Polascik, T. "The Utilization of 111Indium-Capromab Pendetide SPECT-CT for Detecting Seminal Vesicle Invasion with Recurrent Prostate Cancer after Primary In situ Therapy". <u>Int J Urol</u> . 2009 Dec; 16(12):971-5. Epub.
11.	Tsivian, M., Wright, T., Price, M. , Mouraviev, V., Madden, J.F., Kimura, M., Wong, T., & Polascki, T.J. "111-In-Capromab Pendetide Imaging Using Hybrid Gamma Camera-Computer Tomography Technology Is Not Reliable In Detecting Seminal Vesicle Invasion In Patients With Prostate Cancer". <u>Urologic Oncology</u> . 2010 Feb. 27. [Epub ahead of print]. PMID: 20189846.

4. Non-authored publications (faculty member formally acknowledged in the publication for her contributions):

1.	Creative Care Unit: parental guidance, (1979). <u>American Journal of Nursing</u> , 79 (4): 673.
2.	Nurses, physicians prefer different postpartum prescriptions practices, <u>Contraceptive Technology Update</u> , (1986). American Health Consultants, Atlanta. 7 (9).
3.	Public Sector NFP Program, (1988). <u>The NFP Reader</u> , 5 (1), Bethesda, MD: KM Associates.
4.	Asefa, S. "Promoting health in the african american community, cervical cancer", in Promoting Health in the African American Community (PHAAC). In partial fulfillment of requirements for a Master's of Public Health Degree, Department of Health Behavior and Health Education, School of Public Health, University of North Carolina at Chapel Hill, August 8, 1997.

	http://64.233.169.104/search?q=cache:3duPBGMvJskJ:unchsl3.depts.unc.edu/cdpapers/Asefa.pdf+marva+price&hl=en&ct=clnk&cd=43&gl=us .
5.	Reverence. Newsletter of the Albert Schweitzer Fellowship. p. 5 March 2001. http://www.schweitzerfellowship.org/resources/pdf/newsletter4-2.pdf .
6.	United States Department of Defense Annual Report, FY2002. Encouraging research on prostate cancer disparity. p. 4. http://cdmrp.army.mil/annreports/2002annrep/pdf/4_pcrp.pdf .
7.	Making a Difference in London. Screening. International ICNN Cancer Nursing News. Vol. 14, #3, 2002. http://www.isncc.org/files/PDF/14-3web.pdf
8.	Malecare. Free screenings help duke researchers study african americans' reluctance to be tested for prostate cancer. 9/19/2003. http://www.malecare.com/african_american_prostate_cancer_page_61.htm
9.	Key to detecting cancer In men. Duke Center for Integrative Medicine (DCIM). The Herald Sun, Durham, N.C. August 7, 2003.
10.	Cancer seminars to open today. The Herald Sun, Durham, N.C. January 30, 2004.
11.	EHD puts its best foot forward for cohort 5 finalists. Eliminating Health Disparities Program Newsletter. Saint Louis University. Vol. 1, Issue 3, 2004. http://ehd.wustl.edu/newsletter/06.01.04/06news1.htm
12.	Storming Media. Pentagon Reports. Increasing sustained participation in free mass prostate cancer screening clinics. May 2005. http://www.stormingmedia.us/36/3623/A362344.html .
13.	Pint-Size Clinics Take Root at CVS. The Herald Sun, Durham, N.C. October 31, 2005. http://www.redorbit.com/news/health/290670/pintsize_clinics_take_root_at_cvs/index.html
14.	Duke Chronicle. Duke center for integrative medicine (DCIM) focuses on holistic medicine. September 29, 2005. http://media.www.dukechronicle.com/media/storage/paper884/news/2005/09/29/News/Dcim-Focuses.On.Holistic.Medicine-1474488.shtml .
15.	Top Company Profiles. Carolina Meadows, Inc. Board Members. Condé Nast. Portfolio.com. 2007. http://www.portfolio.com/resources/company-profiles/Carolina-Meadows-Inc-575490
16.	Prostate Health: A journal guide. Detection. Duke Prostate Center. http://www.dukehealth.org/Services/ProstateCancer/index/Prostate%20Health%20--%20A%20Survival%20Guide.pdf
17.	Noteworthy. Reflections on nursing leadership. Honor Society of Nursing, Sigma Theta Tau International. http://nursingsociety.org/RNL/3Q_2007/departments/noteworthy3.html
18.	Health Articles: First Hand: Marva Price, DrPH, RN, FAAN, Family Nurse Practitioner and Director, Family Nurse Practitioner Specialty at the Duke University School of Nursing, from Cancer Center Notes, Duke Health.Org., 4/10/2007.
19.	Tuskegee University. Minority researchers receive AACR awards. February 19, 2008. http://www.tuskegee.edu/Global/story.asp?S=2757048 .
20.	DukeHealth.Org. Overweight and obese men have lower PSA values, even before they get prostate cancer. Feb. 19, 2008. http://www.dukehealth.org/HealthLibrary/News/10246 .
21.	Physorg.com. SCIENCE:PHYSICS:TECH:NANO:NEWS. Overweight and obese men have lower PSA values, even before they get prostate cancer. Published: 11:58 EST, February 19, 2008. http://www.physorg.com/news122644683.html .
22.	Bio-Medicine. Overweight and obese men have lower PSA values, even before they get prostate cancer. February 19, 2008. http://www.bio-medicine.org/medicine-news-1/Overweight-and-obese-men-have-lower-PSA-values--even-before-they-get-prostate-cancer-12243-1/ .
23.	Medpage Today. PSA levels deceptively low in obese men. February 19, 2008. http://www.medpagetoday.com/Urology/ProstateCancer/8422 .
24.	Bio-Medicine. Overweight and obese men have lower PSA values, even before they get prostate cancer, February, 19, 2008. http://www.bio-medicine.org/medicine-news-1/Overweight-and-obese-men-have-lower-PSA-values--even-before-they-get-prostate-cancer-12243-1/ .
25.	Science Centric. Overweight and obese men have lower PSA values, even before they get prostate cancer. February 19, 2008. http://www.sciencecentric.com/news/article.php?q=08021919 .
26.	The Times of India, Gurgaon, Haryana. Obese men may have low PSA values. February 20, 2008. http://www1.timesofindia.indiatimes.com/articleshow/2797786.cms .
27.	Thaindian News, Bangkok Thailand. Obesity in men linked to lower PSA values. February 20, 2008. http://www.thaindian.com/newsportal/health/obesity-in-men-linked-to-lower-psa-values_10019289.html .

28.	Science Daily. Science News. Overweight And Obese Men Have Lower PSA Values, Even Before They Get Prostate Cancer. Feb. 20, 2008. http://www.sciencedaily.com/releases/2008/02/080219115156.htm .
29.	AbhayJere.com. India is World's New BioSciences Hub. Overweight And Obese Men Have Lower PSA Values, Even Before They Get Prostate Cancer. February 20, 2008. http://abhayjere.com/sciencenews_2008.aspx
30.	Medical News Today. Lower PSA Values Found In Overweight And Obese Men, Even Before Diagnosis Of Prostate Cancer, 20 Feb 2008 - 3:00 PDT.
31.	Testicare. Prostate Cancer-PSA news. Overweight And Obese Men Have Lower PSA Values, Even Before They Get Prostate Cancer. February 20, 2008.
32.	Online Focus. Gesundheit. Prostatakrebs. Fett verfälscht Blutwert. February 20, 2008. http://www.focus.de/gesundheit/ratgeber/krebs/news/prostatakrebs_aid_262109.html .
33.	<i>TopNews Health. Obesity in men linked to lower PSA values. February 20, 2008.</i> http://www.topnews.in/health/obesity-men-linked-lower-psa-values-21129 .
34.	<i>Urología. Los niveles de PSA son menores en los hombres con obesidad. February 21, 2008.</i> http://www.diariomedico.com/edicion/diario_medico/especialidades/urologia/es/desarrollo/1091936.html .
35.	Innovations Report, Forum für Wissenschaft, Industrie und Wirtschaft. Overweight and obese men have lower PSA values, even before they get prostate cancer. 21.02.2008.
36.	MedicExchange.Com. Overweight and obese men have lower PSA values, even before they get prostate cancer. February 25, 2008. http://www.medicexchange.com/RIS-PACS/news.aspx/12508/Overweight-and-obese-men-have-lower-PSA-values--even-before-they-get-prostate-cancer .
37.	Medscape Today. Medscape Medical News. Obesity linked with lower PSA Levels, according to multiethnic cohort. February 25, 2008. http://doctor.medscape.com/viewarticle/570593 .
38.	The "New" Prostate Cancer InfoLink, a service of Prostate Cancer International. Satisfaction and regret after two types of radical prostatectomy. Posted on July 8, 2008 by E. Michael D. ("Mike") Scott. http://prostatecancerinfolink.net/2008/07/08/satisfaction-and-regret-after-two-types-of-radical-prostatectomy/ .
39.	<i>Technorati, Inc. Technorati, Japan. Kevin, M.D. - Medical Weblog. Reactions to story from Well - Tara Parker-Pope - Health - New York Times Blog, Regrets after prostate surgery. August 26, 2008.</i> http://technorati.com/posts/6VTj7VSvaFNXAgEZ6r36BfJyZ74vqYnK8kEjZPRrLt0%3D .
40.	Propeller, Regrets after prostate surgery. http://www.propeller.com/story/2008/08/27/regrets-after-prostate-surgery/
41.	Topix, Durham, N.C. Regrets after prostate surgery. Published: Wednesday, August 27, 2008 at 9:00 a.m. Last Modified: Thursday, August 28, 2008 at 4:25 a.m. http://www.topix.com/health/prostate-cancer/2008/08/regrets-after-prostate-surgery .
42.	vBulletin®, Regrets after prostate surgery (NYT). 09-11-2008, 09:34 PM http://www.eunuch.org/vbulletin/showthread.php?s=65edcc9fc11a0ec030c87c270d6d3a05&p=111186#post111186 .
43.	<i>The New York Times, Well, On Health by Tara Parker-Pope, Regrets after prostate surgery.</i> Sunday, September 21, 2008. http://well.blogs.nytimes.com/2008/08/27/regrets-after-prostate-surgery/ .
44.	Menon, M. & Bhandari, M. Unhappy Patients: Musings of two surgical nihilists. <i>European Urology</i> , 54 (4), 723 – 725. 2008. http://linkinghub.elsevier.com/retrieve/pii/S0302283808008907 .
45.	North Carolina Nurses Association. NCNA members describe why they are members. 2008. http://www.ncnurses.org/NPCouncil/Nurse_Practitioner_Members_Quote.pdf

a. Published scientific reviews for mass distribution:

1.	Price, M.M. (1983). Effectiveness of pediatric primary care. J. S. O'Shea & E.W. Collins, (Eds.), in <u>Physical And Occupational Therapy in Pediatrics</u> .
2.	Price M.M. (1986). Diagnosis and management of the hospitalized child. H.B. Levy, S.H. Sheldon, & R.F. Sulayman (Eds.), in <u>Physical and Occupational Therapy in Pediatrics</u> , 6 (1), 109-110.
3.	Lederer, et al. (1986). <u>Care planning pocket guide</u> . Ed 2. Menlo Park, CA: Addison-Wesley.
4.	Price, M.M. (1986). Minimizing high-risk parenting. R.A. Hoekelman & P.A. Media (Eds.), in <u>Physical and Occupational Therapy In Pediatrics</u> , 6 (2), 125-126.
5.	Price, M.M. (1987). Chronically ill children and their families. N. Hobbs, J.M. Perrin, & H.T. Ireys (Eds.), in <u>Physical And Occupational Therapy In Pediatrics</u> , 7 (3), 107-108.
6.	Price, M. M. (1988). Children with handicaps: A medical primer. Ed 2. M.L. Batshaw & Y.M. Perret (Eds.), in <u>Physical And Occupational Therapy in Pediatrics</u> , 8 (1), 117-118.
7.	Price, M.M. (1989). The invulnerable child. E.J. Anthony & B.J. Cohler (Eds.), in <u>Physical And Occupational Therapy In Pediatrics</u> , 9 (3), 160-161.
8.	Scoggin, J. & Morgan, G. (2001). <u>Practice guidelines for obstetrics and gynecology</u> . Baltimore: Lippincott, Williams & Wilkins.

b. Selected Abstracts:

1.	Price, M.M. (1986, May). "Nurse Practitioner Prescribing Practices". Paper presented at the Annual Conference on Women's Health for Nurse Practitioners, Emory University, Atlanta, GA.
2.	Price, M.M. (1988, May). "Helping Family Planning Patients Stop Smoking". Paper presented at the Annual Conference on Women's Health for Nurse Practitioners, Emory University, Atlanta, GA.
3.	Price, M.M. (1989, May). "Is There an Ideal Contraceptive for the Breastfeeding Woman?" Paper presented at the Annual Perinatal Nursing Conference, Duke University Medical Center, Durham, NC.
4.	Price, M.M. (1993, February). "Cancer Prevention and Early Detection – Changing Lifestyles in Vulnerable Populations". Paper presented at the Health Promotion Disease Prevention Nursing Conference, Friday Conference Center, University of North Carolina School of Nursing, Chapel Hill, NC.
5.	Price, M.M. (1994, April). "Cancers That Worry Women the Most and Screening Dilemmas". Paper presented at the Annual Spring Symposium for Primary Care Nurse Practitioners, Charlotte, NC.
6.	Price, M.M. (1994, October). "Developing and Using Computer Generated Slides for Oral Presentations". Paper presented at the Dissemination Workshop during the Oncology Nurses Symposium on Cancer in African Americans, Atlanta, GA.
7.	Price, M.M. (1994, October 28-30). "Living with Genital Herpes: Counseling the Patient". Paper presented and Seminar Moderator for the Burroughs Wellcome Pharmaceutical Corporation Nursing Conference on Genital Herpes, Research Triangle Park, NC.
8.	Price, M.M. (1995, February, Philadelphia; 1995, April, Miami; and 1995, March, Washington, DC). "Breast Health". Papers presented at the National Black Nurses Association Regional Conferences.
9.	Price, M.M. (1995, August). "Gynecologic Cancers-Cervical Cancer". Paper presented at the National Black Nurses Association National Conference, Washington, DC.
10.	Price, M.M. (1996, August). "Cervical Cancer". Paper presented at the Oncology Nursing Society Post-Conference Seminar at the Annual Meeting of the National Black Nurses Association, Chicago, IL.
11.	Price, M.M. (1997, May). "What Your Mother Needs to Know about Breast Health. Paper presented at the 9 th Annual National Black Graduate Student Conference, Research Triangle Park, NC.
12.	Price, M.M. (1997, August). "Cervical Cancer". Paper presented at the North Carolina Baptist Ushers Conference on Cancer Prevention, UNC Lineberger Comprehensive Cancer Center and the UNC School of Public Health Summer Public Health Conference, Raleigh, NC.
13.	Price, M.M. (1997, August). "Intergenerational Influences On Cervical Cancer Screening". Poster Session presented at the Women's Health Issues – A Global Nursing Perspective, University of Cincinnati, OH, held in St. Thomas, Virgin Islands.
14.	Price, M.M. (1997, December). Generational Influences On Cervical Cancer Screening And The Capacity

	Of The Public Health System To Assure Responsive Services. <u>Dissertation Abstracts International</u> , University of North Carolina, Chapel Hill. Microfiche No. W4.P9462. 1997.
15.	Price, M.M. (1998, August). "Intergenerational Influences on Cervical Cancer Screening". Paper presented at the 11 th Union of International Cancer Congress, Rio de Janeiro, Brazil.
16.	Price, M.M. (1999, April). Enhancing Nurse Educators' Knowledge Base To Teach Their Students Cancer Prevention And Early Detection in African Americans; and Using The Albert Schweitzer Fellowship Program to Foster Cross-Cultural Experiences for Nurse Practitioner Students. Symposium conducted at the annual meeting of the National Organization of Nurse Practitioner Faculties (NONPF), San Francisco, CA.
17.	Price, M.M. (1999, November). "African American Women's Concerns about Cervical Cancer Screening". Paper presented at the American Public Health Association Annual Convention, Chicago, IL.
18.	Price, M.M. (2000, February). "African American Women's Concerns about Cervical Cancer Screening". Paper presented at the 7 th Biennial Symposium on Minorities, The Medically Underserved & Cancer, Addressing the Unequal Burden of Cancer, Washington, DC. Published Abstract p. 41.
19.	Price, M.M. (2000, March). "African American Women's Concerns About Cervical Cancer Screening". Paper presented at the Howard University School of Nursing Research Day, Washington, DC.
20.	Price, M.M. (2000, April). "Creating a Faculty Research Opportunity with a Community Prostate Cancer Screening Program". Paper presented at the National Organization of Nurse Practitioner Faculties (NONPF) 26 th Annual Conference, Washington, DC.
21.	Price, M.M. (2000, August 3; July 30). "Follow-up of Men Who Participate in a Free Community Day Prostate Cancer Screening Clinic". Poster Session presented at the 11 th International Conference on Cancer Nursing-Building The Future, Oslo, Norway.
22.	Price, M.M. (2000, August). "Follow-up of Men who Participate in a Free Community Day Prostate Cancer Screening Clinic" and "Generational Influences on Cervical Cancer Screening". Papers presented at the National Black Nurses Convention, Washington, DC.
23.	Price, M.M. (2000, September). "Gynecologic Cancers". Paper presented at the National Astra Zeneca Challenge Conference for Oncology Nurses, Atlanta, GA.
24.	Price, M.M. (2000, November). "Free Community Prostate Cancer Screening: Who Attends and Why." Paper presented at the American Public Health Association Annual Convention, Boston, MA. Published Abstract – Session 4018.0 p. 202.
25.	Price, M.M. (2001, February 16). "Free Community Prostate Cancer Screening: Who Attends and Why." Poster Session presented at the Annual School of Public Health Minority Health Conference, University of North Carolina, Chapel Hill, NC.
26.	Price, M.M. (2001, September). "Free Community Prostate Cancer Screening: Who Attends and Why". Paper presented at the Biennial Conference of the Center for Disease Control and Prevention (CDC), Using Science to Build Comprehensive Cancer Programs: A 2001 Odyssey, Atlanta, GA.
27.	Price, M.M. (2001, October). "Lessons Learned From 58 African American Men About Prostate Cancer Screening". Paper presented at the American Public Health Association Annual Convention, Atlanta, GA.
28.	Price, M.M. (2002, June). "Free Community Prostate Cancer Screening in A Small Urban Community". Poster #1063 presented at the 18 th Union of International Cancer Congress, Oslo, Norway. Published Abstract, p. 467.
29.	Price, M.M. (2002, August). "Prostate Cancer Screening – Who Attends and Why". Paper presented at the 12 th International Conference on Cancer Nursing 2002: Making A Difference, London. Published Abstract, p. 28.
30.	Price, M.M. & Robertson, C.N. (2002, September). "Increasing Sustained Participation in Free Mass Prostate Cancer Screening Clinics". Poster presented at the Ninth Annual CapCure Scientific Retreat Program, Washington, D.C.
31.	Price, M.M., Powe, B.D., & Underwood, S.M. (2003, March). Symposium 22 "From Research to Practice to Policy: Designing Research-Based Interventions Focused on Cancer Prevention and Control Among African-Americans". 24 th Annual Meeting and Scientific Sessions for the Society of Behavioral Medicine, Salt Lake City, UT.
32.	Price, M.M. (2003, October). "Increasing Sustained Participation in Free Mass Prostate Cancer Screening Clinics in Durham, North Carolina", Sixth Annual Sigma Theta Tau Research Day Conference: Health Disparities in Underserved Minority Populations from a Global Perspective. Posters presented at North Carolina A&T State University School of Nursing, Greensboro, NC. Published Abstract p.13.

33.	Price, M.M. (2003, October). "International Cancer Care Nurses Attitudes about Cervical Cancer Screening". Poster presented at the Sixth Annual Sigma Theta Tau Research Day Conference: Health Disparities in Underserved Minority Populations from a Global Perspective. North Carolina A&T State University School of Nursing, Greensboro, NC. Published Abstract p.24.
34.	Price, M.M., & Combs, I. (2003, November 7-9). "How to Use Innovative Health Education and Screening Programs to Promote Health in the African American Community: Durham, North Carolina and Omaha, Nebraska". Symposium conducted at the 4 th Annual Institutes of Learning Conference. Oncology Nursing Society, Philadelphia, PA. Published Abstract p. 27-31.
35.	Price, M.M., Jackson, S.A., & Robertson, C.N. (2004, March). "Utility of Longitudinal Prostate Specific Antigen Measures in a Screening Population". Poster presented at the Intercultural Cancer Council and Baylor College of Medicine: 9 th Biennial Symposium on Minorities, The Medically Underserved & Cancer, Washington, DC. Published Abstract p. 37.
36.	Price, M.M. (2004, August). "International Cancer Care Nurses Attitudes About Cervical Cancer Screening". Paper presented at the 13 th International Conference on Cancer Nursing 2004: Celebrating Diversity, Sydney, Australia.
37.	Price, M.M., Jackson, S.A., & Robertson, C.N. (2004, November). "Utility of Longitudinal Prostate Specific Antigen Measures in a Screening Population". Poster presentation at the 132 nd Annual Convention of the American Public Health Association, Washington, DC. Published Abstract p. 37.
38.	Price, M.M. (2005, June). "Partnering Mentoring and Education in Prostate Cancer Control", Cancer Prevention and Detection Dissemination Colloquium, invited. Paper presented as outcome of the NCI and Oncology Nursing Society grant collaboration, Chicago, IL.
39.	Price, M.M., Robertson, C.N. & Jackson, S.A., (2006, March). "Longitudinal Variation in Prostate-Specific Antigen Levels in a Screening Population". Poster presentation at the 70 th Annual Meeting of the Southeastern Section, American Urological Association, Inc, Rio Grande, Puerto Rico, Published Abstract p. 110.
40.	Price, M.M., Robertson, C.N. & Jackson, S.A., (2006, March). "Longitudinal Variation in Prostate-Specific Antigen Levels in a Screening Population". Poster presented at the Duke University Medical Center Comprehensive Cancer Center Annual Meeting, Durham, NC. Published Abstract p. 137.
41.	Price, M.M. (2006, March). "Intergenerational Influences on Cervical Cancer Screening in African American Women in Eastern North Carolina". Poster presentation, Duke University Medical Center Comprehensive Cancer Center Annual Meeting, Durham, NC. Published Abstract p. 138.
42.	Price, M.M. & Robertson, C.N. (2006, March). "Increasing Sustained Participation in Free Mass Prostate Cancer Screening Clinics". Poster presentation, Duke University Medical Center Comprehensive Cancer Center Annual Meeting, Durham, NC. Published Abstract p. 139.
43.	Echols, P. & Price, M.M. (2006, April). "The Association of Race on Prostatic Specific Antigen (PSA) Velocity and PSA Doubling Time Prior and Post Radical Prostatectomy". Paper presented at the Intercultural Cancer Council-10 th Biennial Symposium on Minorities, the Medically Underserved and Cancer, Baylor College of Medicine-Houston, TX, held in Washington, DC.
44.	Price, M.M. (2006, June). "Prostate Cancer Screening: Coming to Terms with Controversies". Paper presented at the American Academy of Nurse Practitioners, 21 st National Conference, Dallas, TX.
45.	Price, M.M. (2007, June). "Latest Developments in HPV-related diseases and Cervical Cancer." Paper presented at the American Academy of Nurse Practitioners, 22 nd National Conference, Indianapolis, IN.
46.	Price, M.M. (2007, June). "Prostate Cancer Screening: What Will We Tell Our Patients?" Paper presented at the American Academy of Nurse Practitioners, 22 nd National Conference, Indianapolis, IN.
47.	Bryan, K.A.N., Florian, S.R., Williams, R., Price, M., Sun, L., and Moul, J.W. (2008, March). "Independent predictors for PSA recurrence after radical prostatectomy: Gleason score 3+4 versus 4+3 and percent tumor involvement". Paper presented at the Southeastern Section American Urological Association 72 nd Annual Meeting, San Diego, CA.
48.	Bannister, M., Mouraviev, V., Price, M., Mayes, J., Jackson, S., Tyson, D., Wilson, A., and Polascik, T. (2008, March). "ProstaScint: What Will We Tell Our Patients?" Duke University Medical Center Annual Cancer Center Symposium, Durham, NC. Abstract page 74.
49.	Schroeck, F.R., Krupski, T. L., Sun, L., Albala, D. M. Price, M.M., Polascik, T. J., Robertson, C.N., Tewari, A. K., and Moul, J.W. (2008, March). "Predictors for satisfaction and regret after three different types of radical prostatectomy". Poster presentation, Duke University Medical Center Annual Cancer Symposium, March 12, 2008.

50.	Tolbert-Warren, C., Buschemeyer, C., Klink, J., Mavropoulos, J., Banež, L., Jaychadran, J., Johnson, T., Poulton, S., Hursting, S., Price, M. , and Freedland, S. (2008, March). "Effect of Intermittent Caloric Restriction on Prostate Cancer Growth and Survival in Mice". Duke University Medical Center Annual Cancer Center Symposium, Durham, NC. Abstract page 62.
51.	Jackson, S.A., Price, M. M. , Robertson, C.N, and Smith, R. (2008, April). "Predictors of Sustained Participation in Prostate Cancer Screening Programs", Intercultural Cancer Conference, Baylor University, held in Washington, DC.
52.	Williams, R., Schroeck, F.R., Bryan, KA. N., Price, M. , Sun, L., and Moul, J.W. (2008, April). "Clinical and Pathological Variables: Predictors of PSA Recurrence after Radical Prostatectomy". Intercultural Cancer Conference, Baylor University, held in Washington, DC.
53.	Koontz, B. F., Wright, T., Price, M. , Polascik, T. J., Mayes, J. M., Wong, T. Z., Madden, J., & Mouraviev, V. (2008, May). "Indium Capromab Pendetide Scintigraphic Imaging prior to Surgical Management of Prostate Cancer". Poster presentation, American Urological Association Annual Meeting, Orlando, Fl. May 17-22, 2008. Tracking Number: 08-AB-95342-AUA.
54.	Price, M. , "Human Papillomavirus (HPV) And HPV Vaccines: A Global Update. (2008, August). International Conference on Cancer Nursing, The Suntec Singapore International Convention & Exhibition Centre Singapore. Oral abstract #0-022.
55.	Terry, J., Polascik, T., Mouraviev, V., & Price, M. (2008, November). The Complication Rate of Third Generation Cryosurgical Ablation of the Prostate. Paper presented at the Joint Meeting of the 19 th Annual Argonne Symposium for Undergraduates in Science, Engineering and Mathematics. Computer Information Science & Engineering (Cise) Education, Stakeholder's Summit and the Central States Universities Incorporated (Csui). Argonne National Laboratory Aps Conference Center, Argonne, Il. Oral abstract # 124.
56.	Williams, R., Schroeck, F.R., Bryan, KA. N., Price, M. (2008, December). Sun, L., and Moul, J.W. "Clinical and Pathological Variables: Predictors of PSA Recurrence after Radical Prostatectomy". Paper presented at the 9 th Annual Surgical Urologic Oncology Meeting, Natcher Conference Center, National Institutes of Health, Bethesda.
57.	Price, M. "Issues and Controversies in Prostate Screening". (2009, March). Invited paper for the NCCN (National Comprehensive Cancer Network) 14 th Annual Conference - Clinical Practice Guidelines & Quality Cancer Care™. Hollywood, Florida.

Consultant appointments: (Include US government, state, private organizations, etc.)

Healthy Start Foundation of North Carolina through the Sheps Center, University of North Carolina.

Technical Assistance for grantee workshops for STD prevention project planning for five \$250,000 grants aimed at infant mortality prevention. Greenville, Hickory, and Sanford, March 2000.

Committee for Professional Education, State of California Department of Health Services, Cancer Detection Section for Cervical Cancer, Sacramento, C.A. (meetings held in Los Angeles). Developed a Professional Training Resource Manual for Cervical Cancer and HPV Patient Management. March-May, 2000.

Adolescent Pregnancy Prevention Program. North Carolina General Assembly through the Commission for Health Services, NC. Department of Health and Human Services. Annual grants selection 1988-2002.

Professional awards and special recognitions:

1993	Great 100 Award For Nursing Excellence In North Carolina for Outstanding Contributions to the Profession of Nursing
1995-1996	Albert Schweitzer Fellowship
1995-1997	Lineberger Comprehensive Cancer Center, University of North Carolina, Pre-Doctoral Fellowship
1995	American Nurses Association Ethnic Minority Fellowship, accepted without funding
1996	Alumni Student Award, UNC School of Public Health, awarded at the UNC School of Public Health Annual Alumni Conference
1997	Community Health Nurse of the Year, North Carolina Nurses Association
2002	Fellow, American Academy of Nursing
2005	American Academy of Nurse Practitioners State Award for Excellence
2007	Fellow, American Academy of Nurse Practitioners

Organization	Office held and/or Committee Assignment	Dates
Union of International Cancer Congress Nursing Committee, Geneva, Switzerland. Congress, Oslo, Norway	<u>International:</u> Member	2002-2003
International Society of Nurses in Cancer Care (ISNCC)	Member	2002-2004
American Public Health Association	<u>National:</u> Member	1974-present
American Nurses Association	Member	1974-present
National Black Nurses Association (local chapter: Central Carolina Black Nurses Association)	Member	1978-2004
American Social Health Association, RTP, NC, National Cervical Cancer and Human Papilloma Virus Project	Member Scientific Advisory Board Member	1998-2004
Oncology Nursing Society	Member	1995-present
ONS National Challenge Conference, Conference held in Atlanta, September 14-17, 2000	10 member committee from across the U.S. charged with planning a community outreach course on cancer screening and detection for 300 oncology nurses	January-August 2000
Invitational for Best 100 Oncology Nurse Community Outreach Cancer Prevention and Early Detection Programs, held in Washington, D.C., April 20, 2002	Committee Member for participant follow up and planning a reunion luncheon and poster session	January – April 2002
National Association of Nurse Practitioner Faculties (NONPF).	Elected to the Board of Directors Member Member, Clinical Doctorate Task Force Chair, subcommittee on Faculty Qualifications, Faculty Development, and Student Admissions Criteria	2009 1997-present 2006-2007
The Susan G. Komen for the Cure (National Breast Cancer Foundation)	Member, African American National Advisory Council	2005-2010
Governor's 12 member Commission for Health Service (Public Health Commission), Raleigh.	<u>State:</u> Member, the Public Health Commission writes the rules for all legislation passed by the North Carolina General Assembly including environmental and personal health legislation, immunization laws, restaurant and lodging grading standards, childcare facility, food establishment grading standards, HIV, smallpox, other communicable disease control.	1994; serving 4 th term; Gubernatorial appointee
North Carolina Health and Human Services, Department of Health, Breast and Cervical Cancer Assurance Committee	Chair, Evaluation and improvement of cancer screening services (clinical, laboratory, and radiological) for women in private and public sector clinics	1995-1997
The Albert Schweitzer Foundation	Member, Board of Advisors and Fellowship selection subcommittee. The Foundation provides paid fellowships for community service learning projects conducted by medical, dental, nursing, social work,	2000-present

Organization	Office held and/or Committee Assignment	Dates
	veterinarian, and law graduate and professional students across North Carolina universities with major medical centers.	
Old North State Medical Society, Raleigh-Durham Chapter	Member	2001-2002
Advisory Board, University of North Carolina School of Public Health, Department of Maternal and Child Health	Member	2003
North Carolina Nurses Association (formerly District Eleven)	Member Secretary for Triangle Region; Commission on Standards and Practice	1975-present 1985-1987 2001-2003
“	Member At Large Council of Primary Care Nurse Practitioners	1991-1993
“	Participant, North Carolina Nurses Association Leadership Day	January 2000
“	Participant, Awards Selection Committee for Outstanding Nursing Leadership and Service	January 2000-2001
University of North Carolina School of Public Health, Department of Maternal and Child Health, participated in review of candidates for department chair; annual board meetings	Member, Advisory Board	February 2003
U.S. Army Department of Defense	Ad Hoc Reviewer, IMPACT Technical Committee for the first National Prostate Cancer Research Conference	2006-2007, 2010
Piedmont Health Care, Inc. Federally funded primary care centers in three rural North Carolina counties	<u>Local:</u> Member, Board of Directors	1986-1987
Chatham County Board of Health	Chair Board Member	1992-1994 1989-2000
Research Triangle Clintrials Independent Review Board, Research Triangle Park, NC.	Charter Member	1993-1997
Copernicus Group Independent (International) Review Board, Inc. Cary, NC	Member	2001-2004
Orange-Chatham-Person Developmental Disabilities and Mental Health Authority Mental Health Board	Member, official certifier for Board proceedings	2001-2004, County Commissioners Appointee
Carolina Meadows Retirement Community, a 700 resident continuing care retirement community	Executive Board and Health Committee Member	2004-2008
U.S. Army Department of Defense	Ad Hoc Reviewer and subcommittee chair, IMPACT Technical Committee for abstract reviews for the 2011 National Prostate Cancer Research Conference	October 2010-March 2011

Editorial Boards: N/A

Review Panels:

U.S. Army Depart. of Defense, Integration Panel for Prostate Cancer. Ad hoc panel member to determine the funding level for scored grant proposals for prostate cancer scientific research, 2002, 2003, & 2007.

Teaching responsibilities including continuing education:

<u>Course Number</u>	<u>Course Name</u>	<u>Dates: Semester/Year</u>
N301	Population Based Approaches to Health Care 3 Credits (50 students)	Fall 2010
N502.01 & N502.02	Health Promotion and Disease Prevention 3 Credits (70 students)	Summer 2010
N502	Health Promotion and Disease Prevention 3 Credits (32 students)	Spring 2010
N459	Adult Nurse Practitioner (ANP) Residency, 3 Credits	Spring 2010
N315	Directed Research 3 Credits (one student)	Fall 2009
N459	Adult Nurse Practitioner (ANP) Residency, 3 Credits	Fall 2009
N301	Population Based Approaches to Health Care 3 Credits (25 students)	Fall 2009
N459	Adult Nurse Practitioner (ANP) Residency, 3 Credits	Summer 2009
N459	Adult Nurse Practitioner (ANP) Residency, 3 Credits	Spring 2009
N303	Program Planning and Evaluation, 3 Credits	Spring 2009
N301	Population Based Approaches to Health Care 3 Credits	Fall 2008
N449	Family Nurse Practitioner (FNP) Residency, 4 Credits	Fall 2008
N449	FNP Residency, 4 Credits	Spring 2008
N303	Program Planning and Evaluation, 3 Credits	Spring 2008
N449	FNP Residency 4 Credits	Fall 2007
N301	Population Based Approaches to Health Care 3 Credits	Fall 2007
N301	Population Based Approaches to Health Care 3 Credits	Summer 2007
N333	Acute and Chronic Health Problems, 3 Credits Clinical Group/6 students	Spring 2007
N449	FNP Residency Coordinator 4 Credits	Spring 2007
N449	FNP Residency Coordinator 4 Credits	Fall 2006
N301	Population Based Approaches to Health Care 3 Credits	Fall 2006
N301	Population Based Approaches to Health Care 3 Credits	Summer 2006
N315	Directed Research, 3 Credits	Summer 2006
N449	FNP Residency, 4 Credits	Spring 2006
N449	FNP Residency, 4 Credits	Fall 2005
N449	FNP Residency, 4 Credits	Summer 2005

N449	FNP Residency, 4 Credits	Spring 2005
N442	Sexual and Reproductive Health	Spring 2005
N442.02	Sexual and Reproductive Health	Fall 2004
N442.01	Sexual and Reproductive Health	Fall 2004
N315	Directed Research, 3 Credits	Summer 2004
N449	FNP Residency 4 Credits	Summer 2004
N303	Program Planning and Evaluation	Summer 2004
N442.01	Sexual and Reproductive Health	Spring 2004
N442.02	Sexual and Reproductive Health	Spring 2004
N449	FNP Residency 4 Credits	Spring 2004
N449	FNP Residency	Fall 2003
N442	Sexual and Reproductive Health	Fall 2003
N315	Directed Research	Summer 2003
N449	FNP Residency	Summer 2003
N442	Sexual and Reproductive Health	Spring 2003
N449	FNP Residency 4 Credits	Spring 2003
N459	ANP Residency	Spring 2003
N442	Sexual and Reproductive Health 4 credits	Fall 2002
N315	Directed Research 3 Credits	Summer 2002
N449	FNP Residency 4 Credits	Summer 2002

N502	Health Promotion and Disease Prevention 3 Credits	Summer 2002
N315	Directed Research 3 Credits	Spring 2002
N307	Research Methods Guest lecture on Qualitative Methods	Spring 2002
N449	FNP Residency 4 Credits	Spring 2002
N442	Sexual and Reproductive Health 4 credits 3 Site Visits	Spring 2002
N442	Sexual and Reproductive Health 4 credits 11 Site Visits	Fall 2001
N502	Health Promotion and Disease Prevention 3 Credits	Summer 2001
N501	Health Nursing Ministries 3 credits, guest lectures x 2	Spring 2001
N498	Health and Nursing Ministries 3 credits, guest lectures x 2	Spring 2001
N442	Sexual and Reproductive Health 4 credits 2 credits	Spring 2001
N449	FNP Residency	Spring 2001

	4 Credits	
N315	Directed Research	Summer 2003
N449	FNP Residency	Summer 2003
N442	Sexual and Reproductive Health	Spring 2003
N449	FNP Residency 4 Credits	Spring 2003
N459	ANP Residency	Spring 2003
N442.02	Sexual and Reproductive Health 2 credits	Fall 2000
N442.01	Sexual and Reproductive Health 4 credits	Fall 2000
N442	Sexual and Reproductive Health 4 credits	Spring 2000
N479	Oncology Residency 3 credits	Spring 2000
N442	Sexual and Reproductive Health 4 credits	Fall 1999
N355	Acute and Chronic Illnesses II 4 credits	Summer 1999
N354	Acute and Chronic Illnesses I	Spring 1999
N355	Acute and Chronic Illnesses II 4 credits	Summer 98
N355	Acute and Chronic Illnesses II 4 credits	Spring 98
N442	Sexual and Reproductive Health 4 credits	Spring 98
N354	Acute and Chronic Illnesses I 4 credits	Spring 98
N354	Acute and Chronic Illnesses I 4 credits	Fall 98
N442	Sexual and Reproductive Health 4 credits	Fall 97
N352	Physical Assessment and Clinical Reasoning 3 credits	Fall 97
N354	Acute and Chronic Illnesses I, 4 credits	Summer 97
N355	Acute and Chronic Illnesses II 4 credits	Summer 97
N442	Sexual and Reproductive Health 4 credits	Spring 97
N394	Sexual and Reproductive Health 4 credits	Spring 97
N352	Physical Assessment and Clinical Reasoning 3 credits	Fall 96
N442	Sexual and Reproductive Health 4 credits	Fall 96

UNC School of Nursing, Chapel Hill, Adjunct Assistant Professor

CE	Summer Sessions I and II Physical Assessment	Summer 1996
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	15 for Registered Nurses entering MSN programs	
N269	Family Nurse Practitioner Capstone, 5credits	Summer 1996
N270	FNP Specialty Rotation 1 credit	Summer 1996
PHCY 167 3 Credits	Physical Assessment for PharmD students Section 1	Spring 1996
PHCY 167 3 Credits	Physical Assessment for PharmD students Section 2	Spring 1996
N226	Women's Health Nurse Practitioner Diagnostic Reasoning seminar 4 credits	Fall 1995

Continuing Education Courses:

Faculty, Oncology Nursing Society Three-Day National Institutes on Cancer Prevention and Detection in African Americans, Funded by the National Institutes of Health National Cancer Institute, "Cervical Cancer", 30-40 participants per Institute

Pittsburgh, PA, June 1990
Lexington, KY, April 1993
Seattle, WA, October 1993
Philadelphia, PA, December 1993
Philadelphia, PA, March 1995
Miami, FL, April, 1995
Chicago, IL, August 1996
Milwaukee, WI, June 1998
Milwaukee, WI, July 1998
Milwaukee, WI, August 1998
Milwaukee, WI, September 1999
Atlanta, GA, September 2000
Washington, DC, June 2001
Miami, FL, August 2001
Miami, FL, March 2002
Miami, FL, June 2002
Chicago, IL, January 2003
Miami, FL, February 2004
Miami, FL, May 2004
Baton Rouge, LA, October 2004
Atlanta, GA, February 2005

Areas of research interests (basic and applied) - list:

Health disparities research for prostate cancer and cervical cancer

External support - gifts, grants, and contracts:

PRESENT—CURRENTLY ACTIVE

Project Number:	Status on Grant: PI	Approved Project Period: 02/01/2007-03/31/2011	% Effort: 15
PI: Marva Price			
Source: U. S. Department of Defense		Annual Direct Costs: \$185,000	

Title of Project: Collaboration Around Research and Education (CARE) in Prostate Cancer
Project Goal: The program seeks to provide 12 students from Bennett College for Women, Greensboro, NC, a historically black women's college/university, with mentored research experience over three years.

Project Number:	Status on Grant: Consultant	Approved Project Period: 6/1/2008-6/30/2009	% Effort: 0
PI: (Consultant)			
Source: U. S. Department of Defense		Annual Direct Costs: \$175,531	
Title of Project: Training of Prostate Cancer Imaging: A Collaborative Summer Program for Undergraduates			
Project Goal: The program seeks to provide 54 students from Howard University, Washington, DC, with mentored research experience over three years.			

PENDING:

Project Number:	Status on Grant	Approved Project Period:	% Effort:
PI: Marva Price			
Source:		Annual Direct Costs:	
Title of Project:			
Project Goal:			

PAST:

Project Number:	Status on Grant PI	Approved Project Period: 1/15/2005- 8/14/2008	% Effort: 20
PI: Marva Price			
Source: U. S. Department of Defense		Annual Direct Costs: Annual Direct Costs: \$185,000	
Title of Project: Partnering Research Involving Mentoring and Education (PRIME) in Prostate Cancer			
Project Goal: Partnering Research Involving Mentoring and Education (PRIME) in Prostate Cancer Training Grant with North Carolina Central University to provide beginning prostate cancer education to 12 undergraduate nursing students over three years.			
Project Number:	Status on Grant PI	Approved Project Period: 2002- 2006	% Effort: 47%
PI: Marva Price			
Source: U. S. Department of Defense		Annual Direct Costs: \$406,421.00	

Title of Project: Increasing Sustained Participation in Free Mass Prostate Cancer Screening Clinics			
Project Goal: To increase prostate cancer screening in free community-based clinics among all ethnic groups but with focused recruitment among African American men			
Project Number:	Status on Grant PI	Approved Project Period: June 2002-June 2003	% Effort: --
PI: Marva Price			
Source: Source: U. S. Department of Defense		Annual Direct Costs: \$500 District Eleven, North Carolina Nurses Association	
Title of Project: Cervical Cancer Screening, International Nurses Survey			
Project Goal: To assess attitudes and practices for cervical Cancer Screening among International Nurses in Cancer Care.			
Surveys conducted at the UICC Congress, Oslo, Norway, June-July 2002 & the International Nurses in Cancer Care, London, August-September 2002			
Project Number:	Status on Grant PI	Approved Project Period: 2000-2001	% Effort: 30%
PI: Marva Price			
Source: U.S. Department of Defense		Annual Direct Costs: \$74,984	
Title of Project: Using a Tracking System to Improve Prostate Cancer Screening Follow-up in a Small Urban			
Project Goal: to develop a tracking system for men who volunteer for free community-based prostate cancer screening; to assess their knowledge base about prostate cancer, and lifestyle habits for prostate preventive health			
Project Number:	Status on Grant PI	Approved Project Period: October 1997-98	% Effort: 25%
PI: Marva Price			
Source: Avon-NABCO, Inc		Annual Direct Costs: \$75,000 (\$5,000 match by Carson Products, Savannah)	
Title of Project: Breast Cancer Access Grant for Nurse Practitioners in Nine-County Area in Southeastern North Carolina			
Project Goal: Breast Cancer education project for family nurse practitioners in southeastern counties of North Carolina to increase their knowledge base and how to provide community outreach to increase breast cancer screening rates			

Project Number:	Status on Grant PI	Approved Project Period: 1995-1998	% Effort: 45%
PI: Marva Price			
Source: NIH NCI		Annual Direct Costs: \$40,000	
Title of Project: (Pre-doctoral Fellow), NCI sponsored Cancer Control Education Research Program (CCEP) University of North Carolina, Lineberger Comprehensive Cancer Center, Training Grant –CA64060			
Project Goal: To determine intergenerational influences on cervical cancer screening Dissertation Research			
Project Number:	Status on Grant PI	Approved Project Period: 1994-1995	% Effort: -
PI: Marva Price			
Source: Association of School of Public Health and The Association of Teachers of Preventive Medicine, National Center for Infectious Disease, Division of HIV/AIDS, Surveillance Branch, CDC, Atlanta, GA		Annual Direct Costs: \$23,000	
Title of Project: Protocol development for resource assessment of HIV+ pregnant women’s access and use of AZT and other social and medical resources			
Project Goal: To determine use of antiretroviral medication during pregnancy to reduce HIV vertical transmission to infants for infants treated for HIV at Duke University Medical Center and the University of North Carolina Hospitals			
Project Number:	Status on Grant PI	Approved Project Period: January-April 2001	% Effort: --
Marva Price			
Source: Oncology Nursing Society, Pittsburgh, PA		Annual Direct Costs: Flat amount \$2,000	
Title of Project: Community Education Workshops: Taking care of #2: Colon Cancer Prevention and Detection			
Project Goal: To provide colon cancer education and models for making behavior/diet changes			

Presentations:

Community Presentations (Non-Abstract):

1.	Price, M.M. (1991, May). "Contraception Following Pregnancy Induced Hypertension and other High Risk Medical Conditions. Paper presented at the Perinatal Nurse Conference, Durham County Hospital Corporation, Durham, NC
2.	Price, M.M. (1996, December). "Breast Health: What African American Nurses Want to Know", Luncheon Keynote presented for the Central Carolina Black Nurses Council, Inc., Durham, NC
3.	Price, M.M. (1997, May). "What Your Mother Needs to Know about Breast Health. Paper presented at the 9 th Annual National Black Graduate Student Conference, Research Triangle Park, NC.

4.	Price, M.M. (1997, October). "Breast Health: What African American Women Need to Know", Luncheon Keynote presented for the Community Breast Cancer Awareness Seminar. Delta Sigma Theta Chapel Hill Alumnae Chapter, Inc, Chapel Hill, NC.
5.	Price, M.M. (2000, October). "Breast Self-Examination", Luncheon Keynote at the Community Breast Cancer Awareness Seminar. Delta Sigma Theta Chapel Hill Alumnae Chapter, Inc., Chapel Hill, NC.
6.	Price, M.M. (2001, March). "Nutrition and Colorectal Cancer Screening", Seminar presented for Fearrington Village Cares Group, Pittsboro, NC. Cosponsor, Oncology Nursing Society, Pittsburgh, PA.
7.	Price, M.M. (2001, April). "Nutrition and Colorectal Cancer Screening". Seminar presented for the Corinth AMEZ Church, Siler City, NC. Cosponsor, Oncology Nursing Society, Pittsburgh, PA.
8.	Price, M.M. (2003, June). "Prostate Health". Presentation for Ebenezer Baptist Church, Durham, NC.
9.	Price, M.M. (2003, March). "Prostate Health". Presentation for Peace Missionary Baptist Church, Durham, NC.
10.	Price, M.M. (2004, October). "Prostate Health". Presentation for Mt. Zoar Baptist Church, Durham, NC.
11.	Price, M.M. (2005, March). "Prostate Health", Presentation for the Prostate Cancer Support Group. Lincoln Community Health Center, Durham, NC.
12.	Price, M.M. (2006, March; 2007, June). "Prostate Health". Presentation for Men's Health Group. St. Mark AME Church, Durham, NC.
13.	Price, M.M. (2009, April 4). "Feeling Fine in 2009 - Heart Disease and Breast Cancer among African American Women". North Carolina and South Carolina Annual District Meeting of the Omega Psi Phi Fraternity Wives. Research Triangle Park, NC.

Abstracts

1. Rachael Williams

Clinical and Pathological Variables:

Predictors of PSA Recurrence after Radical Prostatectomy

Background: The presence of Prostate Specific Antigen (PSA) after radical prostatectomy for treatment of clinically localized prostate cancer is considered to be PSA recurrence. Several studies have found various clinical and pathological factors, including age, seminal vesicle invasion (SVI), PSA, and Gleason score, to be predictors of PSA recurrence after radical prostatectomy. These studies, however, have mainly been conducted in the western and northeastern regions of the United States, but none have been conducted in the southeast where there is a significantly higher population of African American males.

Purpose: The aim of this study is to determine which clinical and pathological variables are predictors of PSA recurrence after radical prostatectomy as based upon a patient population generated in the southeast.

Methods: Data were extracted from the Duke University Prostate Cancer Database, a Duke University IRB approved registry of men who underwent radical prostatectomy at Duke University Prostate Center. In total, there were 3996 prostate cancer patients treated with radical prostatectomy from 1970 to 2007 of which 15% were African American, 85% non-African American, 34% < 60 years old, 48% were between 60 to 70 years old, and 18% >70 years old. Clinical and pathological data including age, race, pretreatment PSA, clinical Gleason score, pathological stage (pT), surgical margins, BMI, and pathological Gleason score was analyzed using Kaplan-Meier estimates and Cox proportional hazards regression to assess which best predict PSA recurrence after radical prostatectomy.

Results: In univariate analysis, clinical Gleason score, age, race, pre-treatment PSA, pathological Gleason score, surgical margins, and pT were found to be predictors of PSA recurrence after radical prostatectomy. BMI ($p=0.1601$) did not affect PSA recurrence and therefore was not included in multivariate analysis. In multivariate analysis, age ($p<0.022$), pre-treatment PSA ($p<0.001$), pathological Gleason score ($p<0.001$), surgical margins ($p<0.001$), and pT ($p<0.001$) were found to be predictors of PSA recurrence after radical prostatectomy with race ($p=0.407$) being insignificant.

Conclusions: The results confirm the findings of previous studies conducted in other parts of the U.S. that race is not an independent predictor of PSA recurrence after radical prostatectomy. They are also in line with previous studies which show that age, PSA, pathological Gleason score, surgical margins and pT are predictors of PSA recurrence. Further research should involve developing a prediction model that can be used in

clinical practice to counsel patients about their risk of PSA recurrence after radical prostatectomy.

Impact: This study will play an important role in counseling future candidates for radical prostatectomy.

2. Nitrecus Simmons

A Comparative Study of Genetic Susceptibility and Risk Factors for Men with and without Prostate Cancer

Background: Previous studies have shown that genetic variations of the IGF1 gene and differences in serum occur in both men with and without prostate cancer; however they have shown limited data among minorities. In addition, researchers have found that the repeated occurrence of the homozygous IGF1 gene was much lower in African American men than Caucasian men, which may explain the increased prostate cancer incidence in Black men versus White men.

Purpose: The aim of this study is to compare predisposing genetic factors for men with prostate cancer versus men without prostate cancer to determine those risk factors which will predict a greater likelihood of a positive biopsy among minorities undergoing a prostate needle biopsy.

Methods: The 32 patients in this study consisted of minorities ranging from the age of 40 to 70 years of age and were chosen from the Durham VA. The patients were chosen based on PSA (prostate specific antigen) and DRE (digital rectal exam) exams and placed in groups depending on the results of their prostate needle biopsy. Once patients had consented questionnaires and blood samples were collected for analysis. DNA was extracted to identify and compare potential predisposing genetic factors. Information on other factors such as physical activity, dietary eating habits, and serum was also collected and they were examined as contributors to prostate cancer. In conducting this study we looked for subtle differences in the DNA to show what genes are susceptible in men with and without prostate cancer.

Results: It is expected that serum IGF1 (insulin growth factor) will be higher in men with prostate cancer and lower in men without prostate cancer. IGF1 is a factor that is responsible for cellular growth, multiplication, and replacement in adults. The best predictor for determining the likelihood of prostate cancer was the presence of different forms of the IGF1 gene in DNA.

Conclusion: In conclusion, men with prostate cancer are more likely to have a high IGF1 due to the growth and metastases of prostate cancer cells. Therefore, genes (IGF1) are correlated to prostate cancer in that their presence in DNA causes cancer cells to grow at a rapid pace.

Impact: This research will provide knowledge of the increased vulnerability to prostate cancer in minorities due to genes, other contributing risk factors, and ways of preventing prostate cancer in advance. Understanding how genes may make some more susceptible to prostate cancer helps researchers develop tests to determine the necessary forms of screening and treatments for potential prostate cancer patients.

3. Tiera Wright

Targeting the Source: The Effectiveness of ProstaScint

Background: The ProstaScint test, first used in 1997, is an FDA-approved scan that was developed to specifically site cancerous cells in the lymph nodes and the location of metastases. In a previous study, ProstaScint was used as a diagnostic tool to detect metastasized prostate cancer in lymph nodes or other extra capsular sites. Because ProstaScint is still a relatively new method, more research is needed to confirm the accuracy of ProstaScint scanning, such as identifying other markers that are also present with cancerous growths and metastases.

Purpose: The purpose of my study is to test the accuracy of the ProstaScint test before a radical prostatectomy through comparison with other indicators of prostate cancer. ProstaScint should be able to pinpoint the location of cancer and reveal whether or not it has metastasized.

Methods: Data was extracted from two databases maintained at Duke University Medical Center (DUMC). Patients who had the ProstaScint test post-op were excluded from analyses. Patient records were extracted from a database consisting of 160 patients with prostate cancer seen by R. Edward Coleman, MD at DUMC. All the patients in this database had a radical prostatectomy between 2006 and 2007. Twenty patients from this database met the criteria for this study. In the database produced by Thomas J. Polascik, MD, FACS, DUMC, there were 270 patients seen between 1997 and 2007 at DUMC. Fifty-six patients from this database met the criteria. For final analyses, data was extracted on seventy-six patients from the two databases. The variables analyzed using cross tabs and Chi-square in SPSS included ProstaScint scan data, Gleason score, prostate specific antigen (PSA), surgical margins, and extra capsular extension (ECE) to determine if ProstaScint accurately identifies the location of cancerous cells and masses.

Results: None of the variables analyzed were found to be indicative of the effectiveness of ProstaScint scanning. Neither Gleason score (PSA) ($p=.603$), surgical margins ($p=.693$), nor extra capsular extension (ECE) ($p=.722$) were significant at an alpha-level of $p=.05$.

No data collected conclusively verified the successfulness of ProstaScint scanning.

Discussion: Though ProstaScint can effectively detect localized metastasized cancer, there is no evidence proving that the scan can effectively site the location of capsular cancer. Further research should be conducted examining other factors or markers that may be better corroborators of the accuracy of ProstaScint scanning.

Impact: The continuous use of the ProstaScint test by surgeons and doctors may drastically reduce or potentially eliminate metastasized cancer post-op, particularly for cases involving radical prostatectomy.

4. Cymara Tolbert-Warren

Prostate Cancer: How Diet Effects Tumor Growth

Background: Diet and nutrition are critical components of health maintenance. One-third of cancer deaths in the United States may have been prevented in part by healthier diets. Previous research has shown that a ketogenic diet slows tumor growth and keno bodies inhibit cancer. If the brain lacks glucose, ketone bodies are produced to provide the brain with glucose. Ketosis may be induced by two methods: depriving the body of food or consuming a diet low in glucose.

Purpose: The purpose of this study is to induce ketosis through a specific diet in mice. Once the proper diet is identified, the diet will be replicated and tested in humans.

Methods: One hundred and five Severe Combined Immune Deficiency (SCID) mice were injected with LAPC-4 xenografts. The mice were randomized into seven groups of fifteen and each group was placed on different variations of a Western diet at different caloric levels. Out of the seven groups, two were given an ad-lib amount of food, but had different feeding schedules. Three of the groups were fasted different times during the week and three were fed a restricted diet. All food was administered to the mice on different feeding schedules. Food measurements were recorded daily. Tumor sizes and weights for each mouse were measured biweekly. Mice were euthanized when the volume of the tumor averaged out to 1500 mm or more. The mice were also euthanized if ulcerations of the tumor occurred. From each mouse euthanized, blood samples along with the liver, the tumor, and the prostate were collected for further examination and research.

Results: The mice that were fasted the most during the week and placed on a restricted diet had the highest survival rate. Mice from the other groups died sooner because they failed to achieve the same level of ketosis despite their low caloric intake.

Discussion: The group of mice who were fasted and placed on a restricted diet lived the longest because they became ketotic. Ketone bodies slow the growth of their tumors. Therefore, a diet lower in calories or even a fasting diet increases the rate of survival and slows tumor growth.

Impact: This research has the potential of impacting the prevention not only for prostate cancer, but all cancers. If people understand the importance of a healthy diet and are equipped with the knowledge and tools to make the proper lifestyle changes, it could initially mean higher survival rates and a slowing and reduction in tumor growth. The long-term ramifications of this research would be understanding cancer and developing successful methods for prevention until a cure is found.

5. Shoteria M. Pearson

Does Alcohol Consumption Increase the Risk for Being Diagnosed with Prostate Cancer?

Objectives: The study objective was to determine whether alcohol consumption was associated with increased risk for being diagnosed with prostate cancer in a multi-racial cohort of men undergoing prostate biopsy in an equal-access medical center and to determine whether this association varies by race.

Methods: Within this study, detailed information on alcohol intake along with demographic, anthropometric, and clinical data within the year before biopsy was collected from 333 male participants from the Durham VA Medical Center from 2007 to 2009. Chi-squared test, ranksum test and logistic regression were used to determine the relationship between alcohol intake and risk for positive results on prostate biopsy.

Results: Overall, there was a statistically significant positive association between alcohol intake and the risk for prostate cancer ($p=0.04$). When stratified by race, alcohol intake was associated with increased prostate cancer risk among African American men ($p=0.03$) but not among non-African-American men ($p=0.31$).

Conclusions: In a multi-ethnic cohort of men undergoing prostate biopsy, alcohol consumption was associated with increased risk for prostate cancer in African-Americans. If confirmed in other datasets, steps to increase public awareness of the possible negative effects of alcohol intake on prostate cancer must be taken.

6. Taliah F. Glenn

The Effect of Smoking History on Time from Surgery to Biochemical Recurrence in Patients with Prostate Cancer treated with Radical Prostatectomy

Objectives: Cigarette smoking has been associated with several cancers. Prostate cancer incidence and mortality have been linked to smoking history. However, the effect of smoking in disease recurrence after primary treatment has not been evaluated. Therefore, we sought to determine the association between smoking history and the time from surgery to biochemical recurrence in patients with prostate cancer treated with radical prostatectomy.

Methods: Retrospective cohort study of 777 men undergoing radical prostatectomy from 3

different VA medical centers between 1998-2008. Follow-up was conducted by PSA tests and clinical visits. Comparisons of baseline patients' characteristics were done with chi-square and Kruskal-Wallis tests. We also analyzed time to biochemical recurrence after surgery with Kaplan-Meier plot and rank-sum test.

Results: Of 777 men, 47% were from Durham, 43% were from West LA, and 10% were from Palo Alto. The prevalence of smoking at surgery was 34%. Overall, nonsmokers were older, had lower PSA levels and higher body-mass index at the time of surgery (all $P < 0.05$). Gleason score, prostate weight, percentage of positive surgical margins, extracapsular extension and seminal vesicle invasion were similar between smokers and nonsmokers. Smokers were more likely to develop biochemical recurrence; however, the difference did not reach statistical significance (HR=1.14; $P=0.36$).

Conclusions: Although previous studies showed prostate cancer is potentially associated to smoking history, we found that, after radical prostatectomy, the risk of biochemical recurrence is statistically similar between smokers and nonsmokers. Future studies are necessary to establish the role of smoking in prostate cancer.

7. Tonisha Coburn

The Differential Effects of Carbohydrates. Calories upon Prostate Cancer Tumor Growth in a Xenograft Murine Model

Background: Studies have shown dietary restriction to be an effective means of delaying prostate tumor growth and progression. Indeed, both caloric and carbohydrate restriction have been shown to be anticancer in their effects. However, to date no studies have compared or contrasted the two dietary interventions to each other.

Objective: We sought to examine the differential effects of caloric versus carbohydrate restriction on prostate cancer. Our primary endpoints were tumor volume and mouse survival.

Methods: One hundred six week-old severe combined immunodeficient male (SCID) mice were subcutaneously implanted with LAPC-4. Mice were fed one of four diets: 1) Western Ad Libitum, 2) Western calorically restricted (WCR), 3) No Carbohydrate Ketogenic diet ad libitum (NCKD), and 4) No Carbohydrate Ketogenic Diet calorically restricted (NCKD CR). Calorically restricted arms received 25% less calories than their reference ad libitum diet. Mice body weights and tumor volumes were measured twice weekly. Mice were sacrificed when tumors reached 1000mm³.

Results: By day 50, mice fed WCR, NCKD, and NCKD CR had a significant 45%, 51% and 63% reduction in tumor volume relative to western diet, respectively (rank-sum; $p \leq 0.001$). Interestingly, NCKD-fed mice demonstrated tumor growth delay despite the suggestion of a 4-5% weight gain relative to Western mice. There was no significant suggestion that NCKD prolonged mouse survival relative to Western-fed mice (log-rank; $p=0.10$). In addition, there was a trend for decreased risk of mortality in both WCR (HR: 0.41; 95% CI: 0.12-1.40; $p=0.16$) and NCKD (HR: 0.56;

95%CI: 0.29-1.07; $p=0.08$) fed mice.

Conclusion: The data supports previous findings that NCKD may be an effective means to delay prostate tumor growth. In addition, NCKD may negatively impact tumor biology despite weight gain. However, due to power limitations we are unable to show with statistical significance that there is a differential effect between carbohydrate and caloric restriction upon prostate tumor cancer growth.

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